

**Moral Values, Perceived Access to Care and Preferences
for Healthcare Resource Allocation**

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ABSTRACT

Background: The National Health Service (NHS) is under financial pressure, and the allocation of healthcare resources relies on complex decision-making processes. Rationality is key in rationing procedures, yet its definition is subjective. Additionally, ethical frameworks associated with rationing processes may be ill-equipped to address health-related social injustices. Literature suggests emotions, intuition, rationality, moral values, and narratives of deservedness may infiltrate preferences about healthcare resources allocation (PHRA).

Aims: This research explored how factors drawn from the literature (demographic characteristics, moral judgement, health locus of control, political views, and perceived access to health resources) are associated with PHRA.

Methods: A pragmatic stance with a cross-sectional quantitative approach was adopted. PHRA was defined by author-designed health vignettes with four ethical response options. These were presented to 549 adults in an online survey alongside standardised questionnaires.

Results: Chi-Square analyses suggested that demographic characteristics (e.g. ethnicity and job types) were associated with PHRA in some vignettes but not others. Kruskal Wallis and post hoc tests found differences in PHRA based on political views, moral values, and internal health locus of control. Deprioritising certain groups or allocation based on previous taxation contribution was associated with high internal health locus of control, right-wing views, and moral concerns associated with this stance. Left-wing participants with a lower internal locus of control and moral concerns about care were represented more often in the group that favoured the vulnerability-based options. Specific results differed significantly for each vignette.

Conclusion: The situation-specific nature of the results suggests that participants were not relying on single ethical frameworks when allocating resources and that PHRA may be associated with intuitive processes. Thereafter, the 'Intuition & Bias Accountability Framework' is proposed so that healthcare services are held accountable for bias, and practical rationality is acknowledged as a positive tool for social justice.

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LIST OF ABBREVIATIONS

Within this thesis, the following abbreviations will be used (in order of appearance):

UK = United Kingdom

NHS = National Health Service

PHRA= Preferences for healthcare resource allocation

HLC = Health Locus of Control

HR = Human Right

MH = Mental Health

GP = General Practitioner

RCT = Randomised Controlled Trials

LOC = Locus of control

EBP = Evidence-based practice

NICE = National Institute for Health and Care Excellence

QALY = Quality-Adjusted Life Year

MFT = Moral Foundation Theory

WEIRD = Western, educated, industrialised, rich and democratic

LGBT = Lesbian, gay, bisexual, transgender

LGBTQ+ = Lesbian, gay, bisexual, transgender, queer, questioning, + indicates acceptance of any other terms used by individuals to describe their gender and/or sexual identity.

IHLC = Internal Health Locus of Control

PHLC = Powerful Others Health Locus of Control

CHLC = Chance Health Locus of Control

IFR = Individual Funding Request

UEL = University of East London

BPS = British Psychological Society

PIS = Participant Information Sheet

BSA = British Social Attitudes

EU = European Union

SEUMDS = European Union Agency for Fundamental Rights

MFQ = Moral Foundation Questionnaire

MFQCare = Moral Foundation Questionnaire Care Subscale

MFQFairness = Moral Foundation Questionnaire Fairness Subscale

MFQLoyalty = Moral Foundation Questionnaire Loyalty Subscale

MFQAuthority = Moral Foundation Questionnaire Authority Subscale

MFQSanctity = Moral Foundation Questionnaire Sanctity Subscale

MHLC = Multidimensional Health Locus of Control

V1= Vignette 1

V2 = Vignette 2

V3 = Vignette 3

V4 = Vignette 4

V5 = Vignette 5

V6 = Vignette 6

D1 = Dimension 1

D2 = Dimension 2

D3 = Dimension 3

D4 = Dimension 4

KW = Kruskal Wallis

N = Number

FHFE = Freeman-Halton-Fisher Exact

mr = Mean ranks

SD = Standard Deviation

Min = Minimum

Max = Maximum

M = Mean

SEM = Standard error of the mean

SK = Skewness

Rku = Kurtosis

K-S = Kolmogorov-Smirnov

≠ = Different from

Z = Adjusted Standardised residual

ASR = Adjusted Standardised residual

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1. INTRODUCTION

1.1. Overview

The ethical and political context for rationing healthcare resources in the United Kingdom (UK) and the National Health Service (NHS) are explored to understand the personal factors that contribute to individuals' preferences for healthcare resource allocation (PHRA). These considerations informed the relevance of moral foundations, Health Locus of Control (HLC), personal factors (such as demographics and political leaning) and perceived access to healthcare to PHRA. The research framework below offers an account of why these constructs were investigated. In addition, literature reviews discuss factors that influence PHRA in the UK across two strands: (1) PHRA and ethical framework, and (2) factors that influence PHRA. These helped to identify gaps in the literature and shaped research questions.

1.2. The Research Framework

The exploration of PHRA in relation to moral foundations, HLC, demographic characteristics, and perceived access to healthcare covers large areas of theory and research. It is essential to include these numerous areas due to the complexity of PHRA, especially given the current political context that includes narratives blaming certain marginalised groups (JAN Trust, 2021).

In order to explore the impact and importance of PHRA, access to healthcare will be contextualised within the law before being described according to the Access to Health Framework (Levesque et al., 2013). The impact of lack of access to health will then be summarised to highlight the importance of these decisions. Thereafter, the principles behind rationing in the NHS will be explored through the lens of Utilitarianism, the main ethical viewpoint used by British society, with descriptions of other viewpoints (e.g., Deontology and Communitarianism) provided for context. This will be followed by an overview of issues in rational rationing and

the potential factors likely to affect impartiality in the rationing process, such as personal views, emotions, moral values, and bias.

Moral values have frequently been associated with a range of socio-political decision-making (Graham et al., 2011); for example, compassion has been linked with pro-social attitudes (Hirsh et al., 2010). Conversely, whether people locate control of their health internally or externally has been associated with people's health, utilisation of health services, and blaming social narratives about certain conditions (Kesavayuth et al., 2020; Waldron et al., 2010; Wallston, 2005). Finally, socio-political positioning and perceived access to resources have been associated with a range of ingroup-outgroup attitudes, beliefs and discrimination that are likely to be relevant to PHRA (Correll et al., 2010; Tajfel & Turner, 1986). Therefore, a framework that informs the personal factors operating within PHRA is likely to highlight bias and facilitate better care. Thus, an initial exploration of whether relationships exist between the constructs of moral foundations, HLC, personal and political factors, and perceived access to healthcare in relation to PHRA is thought to be a first step towards understanding the multifaceted processes associated with PHRA.

1.3. The law: Human rights and the Right to Health

The right to health is a Human Right (HR) central to this research. HRs protect against political, social and legal abuse (Nickel, 2007). Although HRs are considered important in psychology (e.g. the Hierarchy of Needs, Maslow, 1943), they are still peripheral in practice, and human rights breaches are frequently seen as something that happens in 'other countries' (Patel, 2019, p.3). Often reactions to HR violations are pathologised rather than acknowledged (Patel, 2019); for example, diagnosis of personality disorders is often used to describe reactions to trauma (Shaw & Proctor, 2005).

The right to health in the UK is defined locally and legally. Article 25 of the United Nations' Universal Declaration of Human Rights (1948) states that "everyone has the right to a standard of living adequate for the health and wellbeing of himself

and of his family, including food, clothing, housing and medical care [...]”. Moreover, the United Nations International Covenant on Economic, Social and Cultural Rights (Article 12, 1966) mandates equal opportunity to access the highest attainable physical and mental health (MH) level and is relevant to all health professionals. It is to be noted that the article does not ensure the right to be healthy. The right to health includes equal and timely access to essential health services; health education; as well as services that are available, accessible, and adequate. Furthermore, it states that countries must address underlying health determinants (including appropriate nutrition, housing, working conditions, and gender equality). However, defining what attainable levels of health mean at the national level is a complex process that involves legal precedents, the application of national laws, and political and personal factors (Braveman & Gruskin, 2003). The risk for discrimination and social gradients of health - a spectrum within which the ones with the least financial resources in society also have the lower level of health, while those with the most financial resources have the highest level (Theodossiou & Zangelidis, 2009; World Health Organisation, 2013) - may threaten human rights. In the UK, human rights have been known to be breached. For example, the Equality and Human Rights Commission (2016) found that the Conservative governments’ implementation of austerity measures since 2010 violated the HRs of those living with disabilities, suggesting paying close attention to the meaning associated with ‘right to health’ is essential.

1.3.1. A Social Justice Approach

This thesis is framed within a Social Justice approach to research and clinical practice because while the law ensures the right to health, access issues remain problematic. Therefore, the author discusses existing theories with this in mind. The social justice approach posits that not only the best level of health possible should be available to all, but also that groups that have been discriminated against should receive the support that they need through adequate policy, services and qualified professionals that cater to their specific needs (Powers & Faden, 2008). One central aspect of social justice is to prevent additional inequalities building from health disparities and for human rights to be adhered to. As such, it is argued that it is healthcare professionals’ duty to ensure that social determinants of health are highlighted and acted upon, and for all staff to adhere to

human rights implementation at all levels of service planning/delivery (Patel, 2019).

1.4. The Problem: Healthcare and Inequalities

The effects of reduced access to healthcare are well documented and increasingly present. In 2010, the Labour government and then the Conservative-led coalition government acknowledged that health inequalities were too wide and that taking action to reduce them was necessary. This led to a review that highlighted social determinants of health and made a range of recommendations with an emphasis on local governments to take action (Marmot et al., 2010). The review offered a framework for action, contending that endorsing sustainable communities was compatible with reducing health inequalities. In particular, the review promoted objectives, including giving children a better start in life, enabling all individuals to maximise their potential and access control over their lives, supporting a healthy standard of living for everyone, and developing sustainable places and communities focussing on ill-health prevention. Ten years later, changes and persistent issues in accessing health were highlighted again, following significant cuts to most departments' expenditures and spending being allocated less equitably, leading to significant disparities (Marmot et al., 2020). For example, those with shorter lives spent more time with ill health, and areas with fewer resources had the highest levels of preventable mortality rates (Marmot et al., 2020). Many studies have evidenced this large health divide in the UK (Garthwaite et al., 2016; Garthwaite & Bambra, 2017), with the COVID-19 pandemic further highlighting such inequalities. A recent paper, including 14891 participants, found that females and those with chronic illnesses faced the most COVID-related healthcare cancellations during the lockdown months (Topriceanu et al., 2020). Several papers (Bambra et al., 2020; Riley, 2020; Rimmer, 2020) called for inequalities caused by COVID-19 to be addressed urgently, with Riley (2020) stating that the impact of COVID-19 is the result of 200 years of social murder.

1.4.1. Neoliberalist Views and Responsibility for Ill-health

Over the last 50 years, Britain's mode of Capitalism has shifted towards Neoliberalism, which supports unregulated markets and a minimal welfare state (Tyler, 2013). Despite the increasing inequalities (Wilkinson & Pickett, 2017), British Governments have supported the notion that adopting Neoliberalism would create a market-driven Egalitarianism (Tyler, 2013), with a focus on meritocracy (Gillies, 2005). However, Neoliberalism is thought to consolidate elites' power through a rhetoric about individualism, choice, freedom and social security (Harvey, 2005). Meritocracy is argued to be a political myth that impacts public perception of social disadvantages through increasing stigmatising social narratives, yet neoliberal policies tend to increase labour precarity (Tyler, 2013; Wacquant, 2008). The neoliberal agenda for healthcare include cost-cutting for efficiency, decentralising to local or regional levels, and the privatisation of some healthcare services (Mcgregor, 2001). The individualism involved in Neoliberalism translates into a focus on one's success and self-interest rather than on communities. Social consequences of actions are not considered. It is assumed that people will be pressured in finding better solutions to fix their healthcare, education, or social security issues. Therefore, poor health choices become the sole responsibility of the individual, and there is little consideration for how the environment and context have led to an issue. As society is thought to reward individual merit, those who do not find their own solutions are blamed through stigmatisation (Mcgregor, 2001).

1.4.2. Access to Health Framework: A Model to Understand Access

The Access to Health Framework is based on the existing literature (Levesque et al., 2013). Healthcare access was defined as a journey, including needs (and perception of needs) for health as well as demand for provision, and experiencing the consequences (e.g., health, economic, satisfaction) of healthcare. They further conceptualised healthcare access as encompassing: "1) Approachability; 2) Acceptability; 3) Availability and accommodation; 4) Affordability; and 5) Appropriateness of healthcare service". This framework is directed at providers, organisations, institutions, and systems. Dimensions affecting populations include: "1) Ability to perceive; 2) Ability to seek; 3) Ability to reach; 4) Ability to pay; and 5) Ability to engage". It addresses populations, communities, households, as well as

individuals. This model demonstrates how multiple factors influence healthcare access, even when it is logistically available (Levesque et al., 2013). As such, preferences and choices about healthcare are likely to be associated with how people (whether professionals or lay) understand their own and others' access to healthcare resource allocation systematically.

Challenges to healthcare access include the ability to access transport links to visit health services (Daly & Allen, 2018). For example, cycling schemes often require smartphones and therefore discriminate against digitally-excluded groups (Marmot et al., 2010). During the lockdown restrictions in 2020/21, additional barriers were created; a study of 51 General Practitioners' (GP) practices showed that only 8.5% of appointments were held face to face (Søreide et al., 2020), furthering accessibility for those who are digitally excluded.

Service users' awareness that healthcare professionals might negatively view them because of their lifestyle or illness is a further issue. This corresponds with the neoliberal context that place on people the responsibility for their health, rather than considering the context for health issues (Mcgregor, 2001). For example, a study from Positive Voices that surveyed 4400 people living with human immunodeficiency virus (HIV) in 2017 found that 16% felt worried they would be discriminated against in some ways, and 10% had chosen to avoid health services because of this (Kall et al., 2020).

1.5. The Provision: The National Health Service (NHS)

The NHS is the public body providing physical and MH care for people who live in the UK. Founded in 1948 after the second world war, the NHS was intended to provide universal access to health, irrespective of wealth, earnings, or contribution. It was to be funded by general taxation (Klein, 2013). This means that it is free at the point of access (aside from limited situations sanctioned by Parliament) and provides need-based clinical care (NHS, 2015, p.4). Non-discriminatory practice, regardless of gender, race, disability, age, sexual orientation, religion or belief, is a central tenet of the NHS constitution (NHS, 2015). Initially, it was thought that a reduction in costs would result from providing good healthcare

for all because the country would then be healthier (Malone & Rycroft-malone, 1998). However, intentions to harness the values of collectivism through prioritising the group over individuals were disparaged. Critics stated that the system did not account for the problem of common-pooled resources – when resources are consumed by all individuals with little incentive to preserve them - and instead, every person was thought to attempt to maximise their own outcomes (Hardin, 1968; Meadowcroft, 2008). However, it is likely that the rise in healthcare costs are due to the growing and ageing of the population and chronic illnesses (The Health Foundation, 2018a). Either way, the cost of the NHS has risen exponentially from 3% of the gross domestic product in the 1950s to 7% (The Health Foundation, 2018a).

1.5.1. Rationing

NHS access is not truly without restrictions. It provides care on a residency-based system: most NHS services are free to those who reside in the UK on a 'lawful and properly settled basis'. Those who do not hold residency may be asked to pay an additional fee when applying for a visa, or may be charged if they require treatment, depending on their residency status (NHS, 2021). This can lead to individuals avoiding healthcare provision and confusion about what one may be able to access (Doctors of the World, 2017). Indeed, An investigation by the Independent newspaper found that cancer patients had been wrongly turned away by NHS Overseas Departments because they could not provide identification documents (Bulman, 2017).

Furthermore, since the 1950s, some aspects of NHS care cost at the point of use, such as charges for prescriptions in England, with exceptions for those on a low income, children and mothers of a child younger than one (although they are free in Scotland and Wales; Williams et al., 2018). Additionally, there are access restrictions to treatments available. 'Open rationing' is when services or treatments are not delivered for the NHS, such as cosmetic procedures, including the ones that repair iatrogenic damages. Secondly, 'covert rationing' and 'postcode lottery' is when the NHS supposedly offers the treatment but reports from providers demonstrate that it is not offered in certain localities (Meadowcroft, 2008; p. 430). NICE (National Institute for Health and Care Excellence) was created in

1999 and aimed to end the 'postcode lottery' by recommending best medical practices supported by the NHS (Rawlins & Culyer, 2004). Russel et al. (2013) highlight the 'black box' aspect of rationing that remains and lacks transparency at the macro and micro levels. Despite creating frameworks to end the postcode lottery (Russell et al., 2013), numerous studies established the disparities in access (e.g. Jones et al., 2019; Smith & Haeney, 2020).

1.6. The Ethics of Rationing

Funding services and treatment have become increasingly problematic due to financial pressures on the NHS. Whilst resource allocation is based on clinical expertise and evidence-based, many criteria for rationing are defined by ethical positions that influence clinical frameworks (NHS Commissioning Board, 2013). Ethics is an essential aspect of medicine and healthcare, which guides moral dilemmas and good medical practice. In doing that, it aims to be a systematic approach toward the institution of principles to access adequate decision-making and conflict management (Mandal et al., 2016). Several ethical viewpoints relevant to healthcare exist. Dominant models in relation to PHRA within the literature are Utilitarianism, Deontology, Contractarianism, and Communitarianism.

1.6.1. Utilitarianism: The Public Health Choice

The utilitarian approach is characterised by whether decisions are likely to benefit the most to the greatest number of persons. It claims that normative properties should depend only on consequences, which in turn determine whether an intervention is moral. The calculated benefits guide whether an action or intervention is chosen based on evidence. In healthcare, this means that allocation is based on resources available and whether a treatment is "worth" the resources used (Mandal et al., 2016). A recent example of this is the guidelines for managing ventilators during the COVID-19 pandemic, in the UK where "greatest medical benefit to the greatest number of people" was used as a central tenet, with a refusal of the 'first come, first served' rule; the only accepted prioritisation was for those in essential jobs in the hope that this benefits to all (Jöbges et al., 2020, p. 951).

To measure maximised gain obtained through one medical choice or another, the concept of Quality-Adjusted Life Year (QALY) has been used and is based on utilitarian principles. QALY offers the possibility of quantifying medical interventions based on the length of time and quality of life they add to a person's life (Anand & Wailoo, 2000). Other similar measures, although used less often, include the Quality of Well-Being Index (QWB), Healthy Year Equivalent (HYE), the EuroQual, and Disability-Adjusted Life Year (DALY). The focus on QALY was dictated by the fact that it is the measure recommended by the National Institute for Health and Care Excellence (NICE; Whitehead & Ali, 2010) and is therefore largely embedded in current policy debates (Nord et al., 2010).

There are several issues with this approach. Firstly, it involves choosing between different health outcomes across different kinds of burdens and does not set an agenda of priority. The choice is embedded in the concept of cost-effectiveness, and so it is difficult to define which health issue/program should be addressed above another (Powers & Faden, 2008). Additionally, there is no involvement of the public or roles for patient preferences, so criteria for selection are based on what the analyst considers to be the more salient health dimension (Powers & Faden, 2008). Political gains and opinions might somehow pressure and lobby, but individuals have minimal power. Tingle (2020, p.379) explained that one of the main reasons for disparities in patient safety in the NHS is "the permissible extent to which the NHS and the general public will allow or at least tolerate significant variation of quality and safety of Trust services". However, people's power is likely limited when even voting is thought only to partially impact many policies (Hooghe et al., 2019).

Furthermore, systems of priority settings that take account of quality and length of life maintain inequalities and are therefore unacceptable (Powers & Faden, 2008). The impact on groups based on age, disability or expensive medical needs is predictable, and it is argued that decision-makers know that it will affect people unequally when allocating healthcare but that there are no better alternatives (Cubbon, 1991). While health maximisation tends to favour the young,

it also tends to privilege those with healthy baselines rather than those with profound disabilities because interventions are perceived as having minimal benefit. This also means that those with the lower expected quality of life and lesser remaining life span will receive lower priority. In terms of social justice, the question is whether these trade-offs between groups and determinants are just (Powers & Faden, 2008). The allocation system must be monitored so that health inequalities do not worsen (Harris, 1987), rather than allowing neoliberalist views of healthcare to cloud broader context issues. Diseases linked with racial or ethnic differences are likely to mean that for some groups, not only will they experience inequality on economic and social levels, but they will also be less likely to be prioritised because they will be perceived as less likely to benefit from expensive treatment that would, in fact, allow them to maintain their current level of wellbeing. If some social groups experience multiple social disadvantages, and these are somehow worsened or sustained by the health maximisation algorithm, then the Social Justice approach to distributing such resources advocates that these numbers should be investigated. Power and Fadden (2008) conclude that rationing of care using formal economic comparison methods like QALYs can be morally acceptable but only under particular social and economic arrangements to eliminate elements of unfairness.

1.6.1.1. Evidence-based practice:

One main pillar of Utilitarianism is Evidence-based practice (EBP) because it guides what is seen as effective interventions. Greenhalgh (2010, p.1) defined the model as:

"The use of mathematical estimates of the risk of benefit and harm, derived from high-quality research on population samples, to inform clinical decision-making."

This definition suggests a hierarchy of evidence, where the higher-ranking evidence conforms "most closely to the standard hypothesis-testing approach of the natural sciences" (Gannon, 2015, p.2). This includes variable controlling experiments and suggests that Randomised Controlled Trials (RCT) are at the top of the hierarchy, only to be superseded by meta-analyses who summarise findings found in other papers through a strict range of criteria. The UK government

states that it is the 'best way of determining whether a policy is working' (Cabinet Office Behavioural Insights Team, 2012, p.6).

EBP is grounded in a positivist epistemology, positing that entities and objects exist independently from us and that we can understand them through observation and manipulation to isolate cause-effect relationships. Alternate epistemologies are based on the idea that truth is constructed through context rather than absolute truth (Bhaskar, 1975; Gergen & Gergen, 2003). The underpinning epistemology is important because while looking for a cure for a physical illness may operate based on objective observation, perception of MH amelioration is more likely to depend on personal values (Gannon, 2015). It may be that clinicians' meaning-making is then given priority above service users' (Miles, 2009) in a way that is likely to favour certain lifestyles above others (Gannon, 2015).

Kerridge (2010, p.365) explains that "evidence-based medicine [...] has and confers both epistemic and moral authority". The idea of authority raises the issue of whose interest is being served by EBP and whether it restricts clinicians' and patients' choices by creating fewer options. For example, treatments untested during RCTs may get less support when NICE establishes the best cost-effective treatment, based on a pool of evidence that is limited and likely to be socially unjust. For example, marginalised groups are less likely to participate in RCT trials and therefore, treatment for their condition to be less researched (Webb et al., 2019). Furthermore, the tension between cost-saving and best available treatments for people remains (Dyer, 2013; Maybin & Klein, 2012). There are concerns about multinational pharmaceutical groups' involvement in developing, testing and marketing new drugs; many large RCT trials are carried out by academics but funded by these pharmaceutical companies (Goldacre, 2013; Moncrieff, 2013). At times, the drug company owns the data from the trial, and the academics only have reduced access to it (Lundh et al., 2011). A system that depends on such 'evidence' that is restricted by political and social forces is likely to be unsuitable and unjust in its current form. Therefore, it is helpful to look at alternative epistemologies and sources (i.e., qualitative research in MH) to complement findings.

1.6.2. Alternative Approaches

Whilst utilitarianism is valued in the western world and used to negotiate the distribution of resources, it is essential to note that other viewpoints with fully developed ethical frameworks also exist.

1.6.2.1. *The deontological approach*

Deontology contrasts with utilitarianism and relates to ethics of duty within which the morality of an action is contingent on the nature of the act. Injury or harm is unacceptable, regardless of the consequences (Conway & Gawronski, 2013). Egalitarianism is the method widely applied to Deontology. To egalitarians, every individual is of equal worth (Furnham & Ofstein, 1997). The decisions may be beneficial to an individual, but the action may have a detrimental outcome for society because many resources will be used on one specific individual. In healthcare, clinician-patient relationships are by nature deontological in that clinicians will attempt to focus their resources on the patients (Mandal et al., 2016). Through training and practice, healthcare professionals often aim to adhere to deontological practices. However, they may be driven to a utilitarian approach by people in charge of funding and resource allocation (e.g., commissioners, managers, or political pressures). Such conflicts are commonly encountered in the NHS and may lead to significant miscommunication between management and clinicians. This is thought to lead to clinicians misreporting actions that do not fit management requirements (Mandal et al., 2016). Interestingly, psychological research showed that empathy, religiosity, and perspective-taking were associated with deontological inclinations, while utilitarian inclinations were linked with moral concern and reduced cognitive load (Conway & Gawronski, 2013).

1.6.2.2. *Contractarianism*

Contractarianism generally aims at establishing principles and norms of justice to regulate social relationships. Based on Rousseau's thinking on social contracts, it suggests that in a free society, people concede the same rights, and the same duties apply to each of the people. The basis of Contractarianism is that people are self-interested; they will act morally and consent to governmental rules in order to maximise their self-interests (Scanlon, 2000). Contractarianism does not

posit wellbeing as a fundamental moral concept and instead allows various personal reasons to motivate actions. Anand and Wailoo (2000) reflected that many assume that paying national insurance contributions means subscribing to an insurance policy administered by the state. Therefore, the failure to address an ageing population's health requirements becomes a sort of contract breach (Anand & Wailoo, 2000). In public health, Contractarianism has been used to advocate for the stigmatisation of some health behaviours such as smoking (Courtwright, 2013). Interestingly, this locates health statuses within individuals' control and suggests that certain health behaviours are breaching social contracts if healthcare is indeed contribution-based. This does not account for socio-economic inequalities that impact various groups (Marmot et al., 2020).

1.6.2.3. Communitarianism

In Communitarianism, humans are seen as social animals with high social needs. Communitarians highlight the significance of transactions between individuals and their local communities. The duty that individuals hold to their communities might extend to minimising health-altering activities like smoking that impose gratuitous costs on society (Brecher, 1999). Through minimising harm and maintaining communities, Communitarianism aims to gain better living standards based on social responsibility (Etzioni, 1993).

1.6.2.4. Rationing Refusal

As a reaction to models that advocate choosing, some have been advocating 'not choosing' (Calabresi & Bobbitt, 1978) to prevent 'disutility' when choosing feels unethical or morally intolerable (Coast, 2000). This can be handled by the lottery principle and "first come, first serve approach"; however, the Egalitarianism of these can be questioned (Calabresi & Bobbitt, 1978) as it does not address inequalities already present in the system (Powers & Faden, 2008).

1.7. Rationally Rationing

The NHS Constitution stated that the public could expect decisions about medicines and treatment allocation 'to be made rationally' (The NHS Constitution for England, 2021). Rationality can be described as model-based, logical and explicitly reasonable decision-making and judgement (Shenhav, 2005). It antecedes action and relies on the systematic analysis of consequences associated with the decision made (Anand & Wailoo, 2000; March, 2006). Moreover, to ensure accountability, the Accountability for Reasonableness Framework (Daniels & Sabin, 2002) was put in place. It states that decisions must be made public, relevant, and regulated, with the ability to make challenges to these mechanisms. However, the literature shows a range of conflicts about whether it is genuinely possible for an organisation to apply this maxim (Gkeredakis et al., 2011).

1.7.1. Types of Rationality

Whist rationality is held as a crucial component of resource allocation, its definition is subjective and multidimensional. The three main types of rationality within healthcare are Institutional, Instrumental, and Practical rationality (Gkeredakis et al., 2011; Ham & Robert, 2003; Russell & Greenhalgh, 2013). Each form has an idiosyncratic impact on health care resource allocation. "Instrumental rationality" captures the scientific stance to allocating resources (Sanderson, 2006). Decision-making in medical settings is seen as cost-efficient and objective (Hedges & Cooper, 1994), following the evidence-base (Greenhalgh & Russell, 2009; Russell et al., 2008). "Institutional rationality" is grounded in procedural requirements such as transparency, decision-making that includes public involvement, and appeal processes (Holm et al., 1998; Maybin & Klein, 2012; Townley, 2008). It argues that values and ethical-moral choice will be present (Hunter, 1996; Nussbaum, 2001; Sanderson, 2006) but considers emotions as unreasonable and polluting (White, 2009). "Practical rationality" values appropriate emotions when facing injustice, for example (Barbalet, 2001; Master, 2009). Any type of rationality is, of course, also limited by the amount of knowledge, time and cognitive ability of the person (Simon, 1957). Plurality in rationing and healthcare re-

sources allocation being infiltrated by emotion and intuition (in Practical and Institutional rationality) has been evidenced in previous research (Russell & Greenhalgh, 2013). The way emotions and intuition permeate decision-making is important because of the range of inter- and intragroup processes evidenced by research that suggest inherent preferential treatment to those who share similar characteristics with us and bias against those who do not (Molenberghs & Louis, 2018).

1.8. Moral Domains and Political Ideology

Moral Foundation Theory (MFT; Haidt & Graham, 2007) is based on the examination of areas that were common to both evolutionary psychology and anthropology, and stated that there are innate systems, which form 'intuitive ethics'. These are an "innate preparedness to feel flashes of approval or disapproval toward certain patterns of events involving other human beings" (Haidt & Joseph, 2004, p.56). Until this body of work emerged, most moral psychology theories were based on deliberative reasoning – that people respond to dilemmas based on a rational process built on previous experiences and universal human values (Kohlberg, 1976; Piaget, 1965; Turiel, 1985). MFT is social intuitionist and challenges the idea of such reasoning. It understands moral judgement as guided by implicit emotional responses that are localised in group clues that are universal and dictate what is thought of as a just society. Social intuitionists do not negate conscious reasoning, but they consider it a post hoc process (Shweder et al., 2008).

MFT is based on the idea that humans have six psychological modules that evolved to generate rapid judgment (Haidt & Graham, 2007): 1) Care/Harm tunes into individual suffering. It is also linked with the evolutionary need of caring for offspring; 2) Fairness/Cheating responds to evaluating cooperation that evolved from benefiting from non-exploitative collective action; 3) Loyalty/Cheating is based on the idea that humans need to build and maintain coalitions; 4) Authority/Subversion makes us aware of the social rank so that individuals can live in social hierarchies; 5) Sanctity/Degradation comes from a need to be sensitive to

pathogens. It applies to social situations to promote social unity through moral disgust towards social taboos (Graham et al., 2011; Schnall et al., 2008); 6) Liberty/Oppression focusses on the experiences of reactance and resentment individuals may feel toward those who oppress their liberties, potentially acting as a force to bring people together (Iyer et al., 2012). As a later addition, most research and measures do not contain the sixth foundation.

Foundations Care/Harm and Fairness/Cheating are described as individualising foundations, as they aim to protect individuals from harm and right violations (Haidt & Joseph, 2004). The remaining foundations focused on Loyalty/Betrayal, Authority/Subversion, Sanctity/Degradation are binding foundations, which promote solidarity and self-sacrifice. They are also likely to create more ingroup favouritism. These are central to Western, educated, industrialised, rich and democratic (WEIRD) societies because of their relevance to social life in market democracies and do not represent the full breadth of human societies (Graham et al., 2009). Research has presented that in WEIRD country, Liberals prioritised Care and Fairness foundation over binding ingroup Loyalty, Authority and Purity, while Conservatives valued ingroup Loyalty, Authority and Sanctity more. For example, Graham and colleagues (2011) demonstrated consistently that Care and Fairness moral concerns were valued by Liberals and that Conservatives preferred Loyalty, Authority, and Sanctity. As such, it is thought that moral values are in part linked with political convictions. Graham and colleagues (2009, 2011) argue that to repair the socio-political divide, morality frameworks from Liberals and Conservatives must be acknowledged. However, research by Kugler and colleagues (2014) evidenced that Loyalty, Authority, and Sanctity concerns were positively associated with intergroup antagonism and support for prejudice, whereas concerns about Fairness and Care were negatively associated with these concepts. According to this research, the attempt to equally understanding Liberals' and Conservatives' frameworks and to accept both morality viewpoints as equal is not acceptable because some of these moral concerns go beyond what can be reasonably defended as objective moral principles and is more likely to be associated by personality traits such as authoritarianism (Kugler et al., 2014). This raises questions about how loyalty, authority, and purity morality con-

cerns interact with PHRA in a country that has been holding a conservative majority for over ten years and whether there is a link with healthcare service delivery failings (Gunner et al., 2019; Kang et al., 2019).

Additionally, the pathogen-avoidance basis of sanctity concerns is likely to impact healthcare resources allocation because there may be a relationship between disgust propensity and moral judgement (Schnall et al., 2008). This may impact health decisions made about those who do not conform to social norms and incite moral disgust through their representation of social taboos. For example, in a study (Chapman et al., 2011), nursing students' race, religious beliefs, sex and having a friend who is openly LGBT was associated with support of lesbian, gay, bisexual and transgender people (LGBT). Non-religious, Caucasian women were found to be most supportive. This suggests that moral frameworks associated with value systems dictate intuitive responses, and this is apparent in the healthcare context.

1.9. Locus of Control

LOC allows one to make sense of “whether or not the person perceives a causal relationship between his[her] own behaviour and the reward” (Rotter, 1966, p. 1). In that, it is part of the process of explanation that one makes about other people's behaviour or attributes. The theory distinguishes between internal (life's outcomes are linked with own behaviour) and external locus of control (life's consequences are linked with others' behaviour, as well as fate and luck). It is thought to interact with several elements within social life. For example, in the United States (US), links between Democrats and external LOC, and Republicans and internal LOC have been established (Sweetser, 2014). Neoliberalism is associated with an internal LOC due to its reliance on individualism, but it has the added impact of belief in a ‘just world’ whereby those who assume responsibility for their own lives will thrive (Beattie et al., 2019; Lerner, 1980).

1.9.1. Locus of Control in Health

Health locus of control (HLC) is defined as people's attribution of their health to personal or external factors (Wallston et al., 1978). It is usually assessed using

three dimensions: Internal (IHLC, personal attribution), Powerful Others (PHLC, external factors linked with powerful others) or Chance (CHLC, external factors linked to fate). Rotter (1990) suggests that positive health beliefs are defined as high internality, meaning that people believe that they are responsible for their own health. This is linked with higher motivation in positive health behaviours, reduction of risk-taking, and the evaluation of one's global health status (Sarafino, 2006; Schweizer & Döbrich, 2003). In a recent study, more than 16000 responses to an Australian health survey on healthcare use and LOC were analysed (Kesavayuth et al., 2020). They found that, overall, participants with an internal LOC (measured on a LOC index designed by the researchers) were more likely to be more satisfied with their health and to have a better level of physical and mental health.

Several studies have examined the association between HLC and health behaviours. Notably, in their meta-analysis of 64 papers on HLC and specific health behaviour and 80 articles on HLC and global health approval, Cheng and colleagues (2016) found perceiving one's health as being influenced by others who are powerful may encourage engagement in healthier behaviours (such as reduced alcohol use) amongst people who are more accepting of external control (Bussey & Bandura, 1999). Internal HLC was associated with increased exercise, diet and reduced smoking, while chance HLC appeared to be associated with decreased smoking and a healthier diet. Overall, the results support the initial theory that HLC could be used beneficially on health behaviour. However, this was mediated by people's values, in particular, their culture (Cheng et al., 2016). Although a recent study on an Italian sample found no significant differences between the role participants wanted to play in their treatment decision-making and internal HLC (Marton et al., 2021), research in the field is limited and has not, to date, linked HLC and people's PHRA. This is despite concerns that inferior care is given to less socially accepted groups, particularly where blame is associated with disease contraction (Hibbert et al., 2018).

1.10. Perception of Access to Healthcare Resources

Finally, a third major factor in healthcare allocation may be whether that person believes they have access to resources themselves. For example, research about attitudes towards immigration shows that when people were less likely to have access to various resources (work opportunities, education), they were less likely to think positively about immigration because they think population increases will reduce their access further (Urbanska & Guimond, 2018). Additionally, it is likely that they will vote for right-wing policies that seem to protect them from an increased migrant population, and therefore (due to negative narratives about immigrants) perceive increased resource gain (Cornelis & Van Hiel, 2015; Green et al., 2016; Urbanska & Guimond, 2018). Unsurprisingly, a study showed that disadvantaged areas in Scotland had unequal amounts of facilities, suggesting that it may not be financial deprivation that leads to a lack of resources in an area. In fact, some deprived areas have many resources (often health-promoting). However, these may not be targeted at the local populations. It is sometimes the case that areas with lower socio-economic demographics have more infrastructures because higher socio-economic communities do not want to manage the noise pollution or footfall, yet, those with limited means may feel unwelcome, leading to low levels of access (Macintyre et al., 2008). When it comes to healthcare resources, it is important to consider whether the provision is designed to be accessible to all groups and how this will influence PHRA of those who feel excluded by health services.

1.11. Identifying Relevant Literature

It was established that although there are several texts on the rationale behind healthcare rationing from an economics viewpoint and on how prejudices interact with healthcare provisions, literature around PHRA and factors that influence it was scarce. The positioning of many of the texts in both economic and social sciences made the analysis for relevance complex. The author had to make links between domains of ethics, moral values, and access to resources, which all interplayed in this specific area (Appendix A presents a mind-map of the themes summarised above).

These narrative reviews followed Booth, Sutton and Papaioannou (2016) framework:

- Who = Adults in the UK
- What = Factors that influence or are associated with PHRA
- How would the research project impact the 'who' = contextualise the current research component in the investigation of people's PHRA in the UK.

These reviews include ethical and moral factors as well as more demographic characteristics that may influence people's decisions. A two-strand option for this literature search was chosen with 1) ethical factors in PHRA and 2) demographics and personal factors and PHRA. Themes and results across publications were explored to summarise overall research findings and identify gaps in research. A thorough outline of the research strategies including inclusion and exclusion criteria is available in Appendix B.

1.11.1. Literature Review One: PHRA and ethical viewpoints for allocation of healthcare resources in the UK

Key text identified were:

1. McHugh et al, 2015: Q Method study of a purposely selected UK sample (N=59) on societal perspective about healthcare resources allocation for those who are terminally ill.
2. Arie (2008): Qualitative phenomenological study on ethical issues surrounding organ donations from organ coordinators' ethical perspectives in the UK and in Japan (UK N=2).
3. Cookson & Dolan (1999): A novel qualitative analysis methodology, which translates qualitative data into ethical principles. The study carried out focus groups in the UK (N=60, focus groups; N=10, general public) on a discussion on fairness in healthcare.
4. Cookson & Dolan (2000) is a review of their 1999 paper.

5. Van Exel et al., (2015): A Q Method study in ten European countries (N=294, UK N=between 20 and 30 participants) identified common patterns in ethical viewpoints about healthcare resource allocation in the general public.

These studies were chosen for their specific focus on ethics as a central point for PHRA. Interestingly, they showed that most participants experienced plurality in viewpoints. For example, in their European study, Van Exel and colleagues (2015) found five different viewpoints relevant to PHRA. They identified: 1) equality in entitlements; 2) magnitude of health gains; 3) maximisation of health benefits; 4) personal responsibility in health; 5) quality of life. Interestingly, they do not all map perfectly on established ethical viewpoints, and authors call for a framework that includes these perspectives. These were designed through factor analysis and were found to be endorsed by the ten countries that participated, yet, it could be argued that factors three and five could be merged because health quality of life is part of the maximisation of health gain (Cubbon, 1991). Furthermore, this study supports findings from Cookson and Doolan (1999) that suggest a need for a theoretical model that fits pluralism in ethical standing. Their study translated qualitative findings into ethical principles that covered 1) giving priority to those with urgent needs, 2) health maximisation and 3) equalisation over the lifetime (Cookson & Dolan, 1999, 2000). The authors reflect that there is a need for more research and a theoretical model that fits with public opinion (Cookson & Dolan, 2000).

A study relating to terminal illness offers a thought-provoking complement to the findings above because end-of-life care precludes long term aspects of health maximisation (McHugh et al., 2015). Authors found that ethical viewpoints included 1) no place for special cases, 2) extending the length of life, and 3) quality of life. Contrary to Van Exel (2015)'s findings, this did not highlight the issue of one's responsibility in their own health. This may be linked to the statements provided as part of the Q methodology rather than participants views (Stainton Rogers, 1995), but may also be linked to the fact that the sample was chosen for

their link to the topic (e.g. being friend or family or being a clinician in the field) which may yield more empathy (Stayt, 2009).

Arie's (2008) study across UK and Japan merged data from the countries somewhat, but certain findings were attributed to the UK organ coordinators. Such themes included donors' families expressing the wish to discriminate against some ethnic groups and the need for ethical guidelines to support those who make decisions. Furthermore, it highlighted the institutional discrimination against men who have sex with men (who only since this year have been allowed to donate blood in the UK within three months of having sex, NHS Blood Donation, 2021). Participants' need for frameworks that support them in their attempt to maintain equity and avoid human rights breaches was reported (Arie, 2008).

It is important to note that these studies have small numbers of participants and various methodologies; while offering a wide-ranging understanding, this does not allow for between-study comparison. The lack of information on participants for some studies is problematic as it does not allow for the personal factors and potential bias acknowledgement, which are likely to influence decision-making in PHRA. The multi-country approach of some of these papers (Arie, 2008; van Exel et al., 2015) is challenging for this review on UK specific results, especially when results were merged. Additionally, Q methodology depends on the sample of statements offered to participants and so are mediated by the researcher's stance (Stainton Rogers, 1995), and qualitative research can sometimes suffer from social desirability bias, especially when topics are politically and socially complex (Bergen & Labonté, 2020).

1.11.2. Literature Review Two: Preferences and systems for healthcare resources allocation in the UK

Key publications were as follow:

- 1) Russell and Greenhalgh (2013): A study using ethnographic linguistic to look at emotion-based wisdom when rationing in a UK Individual Funding Request (IFR) panels between 2009 and 2012 (N=3 IRF panels over three sites in England).

2) Staniforth and Such (2019): This thematic analysis included individual interviews (N=10) and a focus group (N=14) of health professionals working at the UK Public Health England (PHE). It explored how migrants health is conceptualised and addressed by health professionals.

3) Owen-Smith, Coast and Donovan (2009): The study explored patients' (N=31) reaction to healthcare rationing in the UK as well as clinicians (n=21) involved in the process. Data was analysed using methods of constant comparison.

4) Owen-Smith, Donovan and Coast (2015): This UK project took a longitudinal approach to investigating 22 consultations through observation and undertook 78 clinician interviews about clinical rationing in practice in a clinical morbid obesity clinical setting. Transcripts were used using thematic analysis.

5) Owen-Smith, Coast and Donovan (2018): The study used thematic analysis to analyse interviews and clinic observations and addressed healthcare professionals (n=11) and patients' (n=22) experiences of the rationing of weight loss surgery in the UK.

6) Eagle and Vries (2005): The study carried out an ethnographic study on bed admission in three UK hospice sites, from observations of three meetings at each site.

7) Linley & Hughes (2012): A quantitative study of societal views on NICE, cancer drugs funding and value-based pricing criteria for prioritising medicines in a UK adult sample (N=4118).

8) Clark et al (2012): Discrete Choice Experiment questionnaires were utilised to establish priorities for kidney transplantation in a UK sample (patients: n=908; carers: n=41; relatives: n=48 and healthcare professionals: n=113).

It is well established that emotions influence human decision-making (Damasio, 1994; Greene & Haidt, 2002; Lerner et al., 2015) and that while people will generally think according to egalitarian norms, they will also often maintain subtle and/or automatic manifestation of prejudice (Dovidio & Gaertner, 2004). In healthcare resource rationing, the frameworks in place suggest that emotions (negative or positive) are contained by a set of rules. The main question for this thesis is whether the way decisions are made is influenced by personal factors both in decision-makers and the public. The practices of local rationing committees, known as Individual Funding Request (IFR) panels, was investigated by Russel and Greenhalgh (2013) using linguistic ethnography; the study explored resource allocators and how their decisions are made. Throughout, a conflict between rationality and “being human” (p.2) was described by the participants. The role of the IFRs is to assess special requests made by patients and doctors about funding a specific treatment in a specific case. They must consider the impact of this specific allocation on the rest of the population, resources and rationality levels that supposedly exist in the NHS. Through a review of emails, meetings and recordings, authors concluded that Practical rationality worked in tension with Instrumental rationality, and that the final decision was at times based on intuition rather than a fully defined process. They illustrated this with a quote from a GP saying: “I’m not sure it’s based on any evidence review but the feeling I have is that we should fund it” (p.6). The authors highlighted consideration of the family and the broader life context of the patient. Furthermore, they reflected on a separation between the panel members personal and professional moral selves. A last significant point is how the panel’s formal summaries seemed to have entirely written out the human aspect of the decision. This is important because it suggests a breach in the contract of accountability and transparency held with the public (Maybin & Klein, 2012).

With only institutional and instrumental rationality being recorded, leading to a normative discourse that does not include practical rationality, its presence becomes obscured as part of the process. This humanity is described as emotion-led decision-making, and this is the only study that looks specifically at the “wisdom” necessary to practical action (Russell & Greenhalgh, 2013). According to the authors, several personal factors interfere because often, such ethical issues

exist in grey areas. Therefore, gaining information on other characteristics that influence decision-making is crucial. The study by Staniforth and Such (2019) supports this by exemplifying a particular group (migrants), whose health is described as “politically hot issues” and “preloaded [... in] a negative bubble” (p.81). Participants reported the normalisation of racism in media-held discourse that had spread to the workplace and influenced the workforce, leading to lower prioritisation for public health action. The study does not address the personal characteristics of the sample. For example, it would be interesting to hear whether healthcare professionals who were themselves migrants held the same concerns and if diversity in the workforce added tolerance and understanding.

The issue of emotion-based response to healthcare rationing issues is not only relevant to clinicians. After all, clinicians are also patients, voters, and decision-makers. As such, thinking about the lay public’s considerations is important, especially if one considers the pejorative narratives held against certain groups. An important project from Owen-Smith and colleagues (2009) looked at reactions to explicit healthcare rationing from a qualitative perspective. Their study of 31 patients and 21 healthcare professionals showed that participants’ general views around the necessity of rationing changed whether rationing was theoretical or whether it concerned their own health. As well as central themes around a feeling of entitlement to NHS care and the clinical team’s attitude about delivering information, the researchers suggested that patients needed sufficient information and support to be offered to make decisions when treatments were impacted by rationing. This raises questions about whether the public, in general, is provided with enough information to make decisions that influence rationing (e.g. voting). Another study from this research team (Owen-Smith et al., 2015) used a longitudinal approach, investigating 22 consultations through observation and conducting 78 clinician interviews, analysed thematically. It showed that clinicians presented with 450 eligible referrals, needed to prioritise 55 patients, and disagreed about which clinical or financial factors were most significant for making their decisions. In consultations, the predominant technique was rationing by selection (patients most likely to benefit are chosen). However, examples of rationing by denial (intervention denied based lack of effectiveness, high cost or both), delay (making the patient wait), deterrence (barriers to entering the healthcare system),

or deflection (patient is moved to another institution or program) were often used. These categories of rationing were based on the work of Maybin and Klein (2012) on types of rationing on the NHS. Although rationing by denial was sought to be avoided, three years later, only six out of 22 patients recruited had been treated. Most professionals endeavoured to ration implicitly. Links between criteria associated with decision-making and financial limitations on healthcare resource accessibility were only explained by one clinician. The study led to a framework for examining NHS rationing decisions at the consultation level, including rationing by (1) exclusion, (2) deterrence, and (3) delay. These are more likely to be experienced by the patients as systemic failings rather than valid clinical choices, specifically when it comes to delaying or deflecting and denying. More research on the reasons why and how each of the patients accessed care would be interesting. In another study from Owen-Smith and colleagues (2018), a qualitative investigation of attitudes to obesity surgery showed themes such as “earning” surgery. There is medical guidance on the amount of weight one must lose before accessing surgery, offering a quantifiable way to measure ‘earning’, but this also demonstrates a power imbalance between the clinicians and the patients. The power differences were also thought to be associated with personal responsibility narratives and guilt, also endorsed by patients. This created a collusion in implicit rationing based on the ability to lose weight (Owen-Smith et al., 2018).

Admission to services is another example in the context of bed availability issues in the NHS. Eagle and De Vries (2005) found that, aside from evident factors such as medical condition, symptoms, location and primary cause for admission, other factors were significant and included whether or not the clinician present at the meeting knew the patient. The authors reflected on the complexity of different decision-making methods, suggesting that healthcare rationing is mitigated by a personal connection with the patient and that decision-making processes in place may need a further investigation. This further supports Russel & Greenhalgh (2013) study that suggests that rationing and allocation are further impacted by personal characteristics and ‘being human’.

Two studies since 1999 (date of the creation of NICE) have furthered the understanding of how characteristics are likely to implicitly impact the allocation of resources (Clark et al., 2012; Linley & Hughes, 2012). Interestingly, Clark and colleagues (2012) found some differences in preferences linked to whether participants were healthcare professionals (they favoured those with dependent and younger organ recipients). They also prioritised those with no or moderate disease affecting life expectancy, where patients favoured those with moderate or severe illness affecting life expectancy). Ethnicity was also a significant factor, with ethnic minorities being less likely to support prioritisation based on tissue-match. This may be because there are fewer donors from ethnic minorities, which means that tissue-matching prioritisation discriminates against them (Clark et al., 2012). Linley and Hughes (2012) provided the most information about their participants in comparison to other studies. They found that those living with children were more likely to allocate to children treatment over adults. Those who needed the support of carers in their household were more likely to prioritise medicines that increased their independence (e.g. reduced reliance upon carers) than those without. Those on lower income were more likely to express support towards prioritising populations seen as disadvantaged than those with higher incomes. Other unexpected associations included: Participants self-reporting health as bad/very bad health were significantly less likely to support medicines for severe diseases, treatment for conditions with no other medical options, and prioritisation of children. This is important because, although the study suffers from the expected web-based survey limitations (fewer participants over 65 and fewer people in employment), they have accessed a large sample (n=4118). In addition, the cold elicitation methods used here may provide a good account of PHRA in comparison with face-to-face interviews (Dolan & Tsuchiya, 2006) that may at times distort the way the respondents express themselves due to group pressure or social desirability criteria (McColl et al., 2001). The less expected results mentioned above, and the lack of other studies confirming some of the ingroup preferences, suggest that further research on the topic would benefit the field.

Whilst methodology using cold elicitations, such as web-based surveys (Clark et al., 2012; Linley & Hughes, 2012) were thought to be helpful to avoid socially desirable answers, especially when it comes to personal bias, it is useful that some

of the studies in this review were qualitative in methodology. This methodology allows people to reflect on their decision-making process and provide their rationalisation. Indeed, the work of Russel and Greenhalgh (2013) and previous studies of Owen-Smith and colleagues (2009, 2015, 2018) provide an insight into the difficulties with using a framework for PHRA. For example, it is crucial to note that almost all studies (Owen-Smith et al., 2009, 2015, 2018; Russell & Greenhalgh, 2013; Staniforth & Such, 2019) stated that the clinicians were keeping an empathic stance towards the client groups and deontological leaning was often referred to in other words. However, it appears likely that when clinicians are forced to decide and ration as the utilitarianism system dictates, emotion-based judgement (including stereotyping narratives) will fill the gaps where evidence-based is unavailable or equal.

Although the literature gives indications of decision-makers as 'human' with a 'personal' self (Russell & Greenhalgh, 2013; Staniforth & Such, 2019), much of it seemed to focus on patients' characteristics without assessing decision-makers personal factors. This is contrary to social psychology literature that suggests that humans tend to offer preferential treatment to those who belong to similar group memberships (Tajfel et al., 1971). Therefore, studies looking at characteristics of various groups (for their power, as a clinician, for example, or for their ability to vote and change social narratives, as the general public does) is important.

1.12. Research gap and Justification

Research discussed throughout the introduction and literature review has shown that allocating healthcare resources is a complex process in which rationing is based on a range of ethical and moral principles that can conflict with one another. Clinicians and commissioners appear to be navigating conflicts about efficiency, equity and health inequality based on pre-established frameworks. However, the reality is often complex, and the scientific rationale sometimes can be too weak or too multifaceted to allow decision-making. As a result, other processes (e.g., emotional responses or intuition based on moral values) may come into place. When this happens, it is important to highlight potential issues of bias,

ingroup preferential treatment and how moral judgement interacts with preferences and are likely to lead to inequalities. Only a very small number of studies have investigated people's PHRA, mainly with a focus on characteristics of patients, rather than decision-makers (including clinicians and the general public as political actors), and none of them has focussed on PHRA for groups that are minoritised or stigmatised, emphasising a gap in the research and evidence-base.

Clinical psychologists are progressing towards policy-making and leadership roles. Therefore, understanding PHRA processes are crucial to understanding decisions supported by the public, healthcare staff and clinical psychologists themselves in the face of such a complex conundrum. It may also shed light on some of our reactions as clinicians and support reflexivity when working with specific groups or making decisions about their care. This may inform policy and provide personal-professional development to clinicians. Finally, as clinicians, a large proportion of our clients are from groups that are minoritised. Understanding how others respond to their healthcare needs may give some insight into some of the challenges and experiences they face, in turn providing better care for patients.

For all these reasons, a study that would look specifically at the general public's PHRA, in scenarios that include groups or conditions that are stigmatised appears a crucial addition to the evidence base. A sample drawn from the general public was chosen because individuals in the UK were considered to be decision-makers separately from their professional roles (e.g., as healthcare professionals). People in their professional positions adhere to a set of values defined by the organisation or systems they work within. As individuals, people are likely to be impacted by the media, parenting styles, community norms, and views that differ from those they hold professionally (Chusmit & Parker, 1991). Although looking at differences between healthcare professionals and other professional positions may be interesting in the analysis, this project aimed to look at rationing choices in the general public regardless of professional links to healthcare. For this, each person was considered to be a decision-maker because of the heavy influence that public opinion has on public policy (Burstein, 2003).

Furthermore, a particular focus on the respondents' personal factors (moral domains, personal factors, health locus of control, perception of access to healthcare and other demographics) may help us establishing relationships between these individual factors and people's PHRA. When deciding whether to take an exploratory or hypothesis-testing approach, the paucity of the literature addressing this specific topic was considered. An exploratory approach is suggested when the evidence-base is limited or mixed and that a data-driven search for insight is thought to be beneficial (Turkey, 1977). Although the clinical psychology literature tends to focus on specific trends in human behaviour (e.g., preferences for those who belong to their ingroup, Everett, Faber & Crockett, 2015), resources such as the NHS constitution suggests that rationality can be approached systemically (NHS, 2021). Furthermore, the lack of studies investigating how participants characteristics relate to PHRA led to the research gap and a need for an exploratory approach.

1.13. Research Questions

Research question (RQ) 1: Are there significant differences in preferences for healthcare resources allocation based on:

- a. Demographic characteristics
- b. Political leaning
- c. Moral values
- d. Health locus of control
- e. Perceived access to healthcare

RQ 2: Do specific sets of variables (demographic characteristics, political beliefs, moral values, HLC and perceived access to healthcare) predict PHRA

RQ 3: What are participants' views on their decision-making process on PHRA?

2. METHODOLOGY

2.1. Overview

This chapter will begin by outlining the philosophical stance chosen before describing ethical considerations for the study. The design of the study and materials used will then be defined before the procedure and analytic strategy employed are presented.

2.2. Philosophical Stance

A Pragmatic approach underpins this research study. Pierce (1905) defined the 'Pragmatic maxim' as a philosophical attitude that prioritises practical consequences of knowledge, including theories and concepts. This approach is coherent with the current project because it aims to improve experiences in healthcare services and clinical practice. This stance is posited against epistemological positions that traditionally range from realism - a perspective that states that knowledge from the world exists independently of contexts and of one's meaning-making process - to social constructionism - a perspective which believes that human life and theories exist as they do due to social and interpersonal influences (Gergen, 1985, p. 265). Naïve realism suggests that knowledge directly mirrors a universal reality, and therefore phenomena can be tested objectively. Through questioning the neutrality of knowledge, critical positions have emerged, such as the critical realist stance that asserts that while some entities exist autonomously, the meaning individuals attribute to them mitigate how they exist (Bhaskar, 1975). Thus, knowledge and its production are understood as subjective and defined by the context and perception of those involved in the study (McEvoy & Richards, 2006).

Classical Pragmatists argue that meaning is produced through experiences we have with one another (Peirce, 1905), and so no objective truth is contended. No

single position about what exist ontologically exist in Pragmatism. Instead, no interpretation of the world is thought to be more valid than any other, but some definitions are considered to be more useful in specific contexts (Rorty & Putnam, 1992). Pharies (1985) suggests that as researchers, it is impossible to find knowledge beyond what we perceive because reality is always somehow conceptualised (McDermid, 2006). As a result, researchers within the Pragmatic approach do not seek to understand the 'truth' but rather the instrumental value of the new knowledge created. One is not free to believe everything about the world because the consequences of our actions matter (Morgan, 2014) and Pragmatism focusses on the practical consequences of the beliefs that we hold (Dewey, 1941).

In this study, constructs such as moral judgement domains, Health Locus of control, and political ideology, which are complex and multidimensional, were not thought of as existing independently. Instead, the study explored how useful these were in understanding PHRA. This fits Pragmatism because it values theories according to the helpful frameworks they provide for analysing observed data (Cacioppo et al., 2004). Through its focus on function and consequences, Pragmatism has a critical action orientation that is consistent with a social justice agenda, which aims to create change within social contexts (Morgan, 2014). For example, the study findings may help aid clinical psychologists to highlight personal and service bias, and contribute to creating a framework for PHRA that acknowledges possible intuition/emotion-led process at many levels of decision-making in OHRA. It is this focus on consequences that was held throughout.

In Pragmatism, the role of the researcher's experiences in shaping how knowledge was created offers a lens to reflect on why particular methodologies are chosen (Morgan, 2014). Here, the researcher's positionality (Cornish & Gillespie, 2009) was based on experiences of working in mental and physical healthcare that have led to concerns about the impact of perceived access to healthcare, moral judgement held and personal and political views on PHRA. It was thought that the quantitative approach would enable the exploration of the relationships between the main factors in PHRA found in the literature because survey designs can be a helpful way to counteract social desirability effects

(Grimm, 2010). Whilst Pragmatism is often linked with mixed-methodologies only, Morgan (2014) made a strong argument for its use in any social research and for it to replace the relativism-post-positivism paradigm completely. As such, it felt adequate to use Pragmatism with a quantitative approach. This quantitative approach was also chosen for its influence and power in the evidence hierarchy (Denzin, 2010), therefore maximising its potential impact on practice.

2.3. Ethical Considerations

2.3.1. Ethical Approval

Ethical approval for the project (see Appendix C) - and a later amendment (in Appendix D) - was obtained from the University of East London's (UEL) Research and Ethics Committee. The study was designed with the Ethics Guidelines for Internet-mediated Research (British Psychological Society [BPS], 2013) and the Code of Human Research Ethics (BPS, 2014) in mind. Principles around 'maximising benefit', 'minimising harm' (Principle 4, BPS, 2013, p.18) and ensuring 'scientific value' through appropriate 'levels of control' (Principle 2, BPS, 2013, p.14) were particularly considered. All possible steps to minimise adverse effects on participants were taken through discussing the process in supervision, obtaining informed consent, and ensuring anonymity and confidentiality.

2.3.2. Informed consent

Participants were presented with an electronic Participant Information Sheet (PIS; available in Appendix E), which detailed the purpose and method of the study, as well as how issues of confidentiality and anonymity would be approached. This was presented on Qualtrics, an online survey software. As part of the PIS, contact details for the research team and the university were provided so that any concerns could be reported if need be. Participants were given the opportunity to ask questions to the researcher, the supervisory team, or the university by email throughout. Right to withdraw was explained as well as the fact that data will be eventually merged and so right to withdraw applied for three weeks after completing the study. Participants were encouraged to save a copy of the information sheet. Consent was given through a page that reiterated the main ethical points

via statements that the participants could tick if they agreed to it (Appendix F). Not ticking these statements or stopping mid-study was also considered to be declined consent.

2.3.3. Confidentiality

Responses to the online survey were anonymous. Participants were asked to generate a four-digit identifying (ID) code, so they can be identified should they wish to withdraw their answers. This would be through emailing the researcher with the code (no other details would be asked) so that their data could be retrieved and immediately deleted. Participants could also email the researcher if they wished to obtain a summary of the findings. The request would not require their ID code and therefore, could not be linked to their responses. Email addresses provided to enter the draw to win four £25 Amazon vouchers were kept on a password-protected file on the researcher's computer and were destroyed once the study was completed, the prizes had been allocated and participants in the draw had been contacted to inform them of the outcome. This list of email addresses was different from the list of participants wishing to be contacted with a summary of the findings. Exclusively anonymised data will be kept for three years in a password-protected file by the UEL supervisor on the UEL OneDrive for dissemination purpose and will be destroyed after that. The researcher will delete all data (Caldicott Committee, 1997).

2.3.4. Protecting Participants

This study was conducted online. Online research carries the risk of inducing painful memories without face-to-face support (Barchard & Williams, 2008). Careful consideration was taken through giving as much information as possible in the information sheet, choosing appropriate questionnaires, which were ordered in a way that minimised risk associated (i.e., having the vignette first and finishing the questionnaire on political questions), and piloting of the vignettes. These potential risks were outlined in the PIS. Participants were informed that although the research team considered the survey as potentially low in risk, the questionnaires and vignettes may trigger some painful memories. As such, participants were given a list of agencies that could offer some support if necessary. This information was available in the PIS (Appendix E) and a debrief summary (Appendix

G). They were also reminded that participation was voluntary and of their right to withdraw during the study by exiting Qualtrics.

2.3.5. Debriefing

After completing the survey, participants were presented with the debriefing summary (Appendix G), which included the research team and university contact details, and the list of agencies able to offer support as indicated in the PIS.

2.4. Design

Self-report questionnaires were considered adequate to obtain the relevant data. This quantitative approach was chosen to explore relationships between the relevant variables because it allowed for a larger sample size that could help mapping out relationships between explored constructs. A cross-sectional design was thought to respond best to the research questions as it would allow comparison with previous studies (Clark et al., 2012; Linley & Hughes, 2012). Researcher bias and error were reduced by using standardised questionnaires (Althubaiti, 2016).

2.5. Participants

2.5.1. Inclusion criteria

This study aimed at capturing the views of people who live in the UK and utilise the healthcare system, and therefore, criteria for selection were kept to a minimum. The three criteria participants were required to meet were:

- Being a UK residence for over three years, or having lived in the UK for three years over the last ten years. This was to increase the likelihood of exposure to the British healthcare system.
- Age 18 or over. This was to reduce the potential confounding variables about experiencing healthcare as a minor and relying on others to make decisions.
- Proficiency in English: Although this was not explicitly stated, all the study materials were in English and the questionnaires were not translated.

2.5.2. Recruitment

The study was advertised on the Internet through social media sites: Facebook, Twitter and Instagram from 10/07/2020 until 01/03/2021. Convenience sampling was employed. Adverts asked people to share the details of the study with others if they wished to, and therefore exact sharing locations are unknown. Appendix H and I present the advertising posts. The advertisement message was posted a range of Facebook pages in the hope to reach groups that varied in demographics and geographical location (list available in Appendix J). Due to the large number of female participants recruited after 4 months, a targeted recruitment approach was used via Facebook Advert in November and December 2020 (initial ethics approval on 7/07/2020 and amendment requested on 29/10/2020) in the hope to specifically increase the recruitment of male participants.

2.6. **Materials**

The researcher and supervisors reviewed the questionnaires and their psychometric properties, length, content, face validity and cost. The measures were chosen as they were thought to measure as best as possible the constructs that emerged as relevant during the literature search. Tools that had been used in a wide range of projects were preferred to allow for comparison of the findings. All measures were free to use for research.

2.6.1. Demographics and personal questions

2.6.1.1. *Demographics*

The demographic questionnaire designed for this study (available in Appendix K) collected the usual demographic information (gender, occupation, income, etc.) but was very detailed as to explore in-depth demographics aspects of the data. Additional questions were inspired by the questions used by the Moral Foundation Questionnaire team in their ongoing online research project, because of their focus on links between personal factors and moral values. They included questions about participants perceived social mobility ('1- Over the last 10 years, do you feel that your financial situation has: Worsened/ Stayed the same/ Improved?' and '2- Thinking about the entire population in the UK and who is better

off [in terms of education, finances, respected jobs], where would you place yourself in comparison to others? 1-10 scale'; Moralfoundation.org, 2013). Details about the Moral Foundation project is available below. Three initial questions were asked at the start of the survey (age, length of time in the UK and whether people had lived in the UK for at least three years within the last ten years) as these were inclusion criteria.

2.6.1.2. Political leaning and ideology

Political views were measured through questions extracted from a yearly report on British Social Attitudes (BSA, Curtice et al., 2019). These have been used consistently since 1986 and included:

- A party identification section.
- Three political scales (Left-Right [BSALR]; Libertarian–Authoritarian [BSALA]; and Welfarism [BSAWS]), Each questionnaire consists of statements to which the respondent is invited to “agree strongly”, “agree”, “neither agree nor disagree”, “disagree” or “disagree strongly”. Internal reliability was tested and a Cronbach’s alpha of 0.82 for the BSALR, 0.79 for the BSALA scale and 0.83 for the BSAWS was obtained, suggesting this was a valid tool (Curtice et al., 2019; Field, 2017).
- The BSA has historically asked people about their position on European Union (EU). These annual reports show interesting data on how attitudes have changed. Because health resources (in particular a media campaign about a possible £350million being redirected to the NHS after Brexit - the term used to describe exit of the UK from the EU) was a part of the Brexit debate, a question on the European debate was also lifted from the BSA and added at the end of the political section: ‘Thinking about Britain’s relationship with the European Union, do you think of yourself as a ‘Remainer’, a ‘Leaver’, or do you not think of yourself in that way? – we then asked if the National Health Service resources ‘had impacted the way they thought about this debate?’. This last question was designed by the researcher. All political questions are available in appendix L.

2.6.1.3. *Perceived access to health resources*

An excerpt from the health section of in The Second European Union Minorities and Discrimination Survey (SEUMDS, European Union Agency for Fundamental Rights, 2017, available in Appendix M) was used for questions about access to healthcare. It included 5 to 10 questions (depending on whether participants had needed healthcare services or experienced discrimination). A key question was: 'Did you have a medical examination or treatment each time you really needed it during the past 12 months?'

2.6.2. Moral values

The Moral Foundation Questionnaire (MFQ; Graham et al., 2011; available in Appendix N) is a self-report questionnaire which assesses whether specific moral values are considered when making a judgement. An example of each is provided below (Graham et al., 2011):

- 1) Care/Harm: "Whether or not someone was harmed"
- 2) Fairness/Reciprocity: "Whether or not someone acted unfairly"
- 3) Loyalty/Betrayal: "Whether or not someone betrayed his or her group"
- 4) Authority/Respect: "Whether or not the people involved were of the same rank"
- 5) Sanctity/Degradation: "Whether or not someone did something disgusting"

The questionnaire is available in Appendix N. In part one, participants responded to the moral relevance of 16 items from 0 (not at all relevant) to 5 (extremely relevant) and in part two, they answered by agreeing to moral judgments (16 items), from 0 (strongly disagree) to 5 (strongly agree). Items six and 22 are designed to catch inattentive responses. Cronbach's reliability statistics varied from $\alpha=.67$ to $\alpha=.84$ depending on domains (Graham et al., 2011).

2.6.3. Multidimensional Health Locus of Control Scale (MHLC)

The MHLC form A (Wallston et al., 1978) is set to help understand personal beliefs that underpin health behaviours in a 'relatively healthy sample' (Wallston, 1993). All the items are scored from 1 to 6 presented on a Likert scale (Strongly disagree-strongly agree; available in Appendix O). The MHLC has three subscales abbreviated as follows:

- IHLC (Internal Health Locus of Control): The extent to which individuals believe their health is a function of their own behaviour.
- PHLC (Powerful others Health Locus of Control): The extent of the belief that one's own health is the results of the actions of "powerful" people (such as one's doctors)
- CHLC (Chance Health Locus of Control): The extent of that ones' health is impacted by chance, fate or luck influences one's health.

The score obtained in each subscale ranged from 6 to 36, which were independently assessed for validity and reliability. The MHLC scales have been validated in a range of countries (e.g. Kassianos et al. 2016) and the Cronbach's alpha coefficients of the IHLC, PHLC and CHLC subscales ranged from 0.70 to 0.73, with test-retest reliability ranging from 0.63 to 0.75 (Hubley & Wagner, 2004).

2.6.4. Vignettes Generation and Scoring

Six vignettes (available in Appendix P) aiming at capturing ethical dilemmas in healthcare were designed for the purpose of this study. The use of vignette in Social Sciences is problematic if there is no effort made to increase internal validity (Hughes & Huby, 2004). Vignettes were created based on the clinical experience of the author as well as NICE and NHS guidelines for each issue. In addition, media stories were non-systematically considered to integrate topics likely to be understood by and/or interesting to participants. For example, before the questionnaire was put online, the COVID-19 lockdown started, and so it felt relevant to include some of the dilemmas reported in the media and witnessed by the researcher while working in a hospital. The vignettes were scored on four dimensions that represent the main ethical priorities reported in the literature and relevant to the NHS rationing:

- D1: a vulnerability-based option in line with a Deontological stance.
- D2: a consequence-based statement related to a Utilitarianist stance.
- D3: a contribution-based option encompassing Contractarianism.
- D4: a responsibility-based that focussed on the causality attributed to the illness, suggesting that a person had broken the social contract. This aligns with Contractarianism and Communitarianism.

Participants were asked to choose a statement about PHRA that best corresponded to their views. A qualitative box was available for participants to add comments if they wished to do so. To increase the internal validity of the vignettes, they were vetted by professionals who work in mental and physical health settings (three Clinical Psychologists; two who worked in a physical healthcare setting and one who worked in MH) so that the plausibility of the settings and realistic aspects are confirmed. During the pilot phase, specific attention was given to the length, comprehension, and plausibility of the vignettes. One of the clinical psychologists gave in-depth details of her experiences in a health psychology service to support the veracity of the scenarios. Another one gave thoughts based on their experiences of working within the MH systems. The vignettes went through several stages of refinement. For example, based on the feedback, some details in the vignettes were changed to fit new local guidance. Some of the wording was also ameliorated for clarity. The supervisory team reviewed the vignettes at each stage and provided feedback based on previous research and their own knowledge of material creation. Eight vignettes were created and proposed as part of the study in the pilot phase (described below). The final six vignettes chosen after piloting of the study were:

Vignette 1 (V1): Liver transplant for someone who had a history of abusing alcohol

Vignette 2 (V2): Self-harm by burn and skin graft treatment

Vignette 3 (V3): MH care for an immigrant admitted to A&E after a road traffic accident

Vignette 4 (V4): Antiretroviral medication for a couple at risk of contracting HIV.

Vignette 5 (V5): MH care for someone who already had extensive MH treatment

Vignette 6 (V6): Prioritising for COVID-19 treatment someone vulnerable who has contracted COVID while breaking lockdown rules.

An exemplar vignette is presented in Box 1 (other vignettes are available in Appendix P).

Box 1

Vignette 1

The common causes for liver transplants are liver cell cancer, viral hepatitis, and alcohol-related liver disease. Livers available for organ donations are limited and many people become increasingly unwell and eventually pass away while on the waiting list. A middle-aged person has been drinking heavily since their late 20s. Over the years, their health has deteriorated, and they have been diagnosed with Alcohol-Related Liver Disease. They need a liver transplant urgently and have now been abstinent from alcohol for three months. Do you think that this person should be given priority on the waiting list?

- People with alcohol dependency problems are often emotionally and economically vulnerable, therefore, they should have priority over less vulnerable people. (D1)
- This person should be prioritised based on whether this is the most cost-efficient option for a better quality of life. For example, if giving them access to a new liver now will reduce future healthcare costs. (D2)
- This person should be prioritised based on whether they have contributed to the system through taxation, regardless of the cause of their disease. (D3)
- The person is unwell because they have been abusing alcohol and therefore, should be given lower priority for receiving a new liver on the NHS. (D4)

Please tell us if these statements did not represent your views or if you would like to add anything.

2.7. Pilot Phase

The survey was piloted with individuals from the researcher's network to check for length, readability, interest, and fatigue. The pilot phase of the online survey involved six participants (three Clinical Psychologists and three non-health related professionals). They were all female, and four of them spoke English as their first language. They were educated to A-level standard (1), Degree level (1), Master's level (1) and Doctoral level (3). Pilot participants were asked to time themselves, to offer general thoughts about their experience of rating the vignettes and highlighted anything that was unclear or problematic. They were also asked to choose which of the vignette they found the least interesting and the six vignettes that were preferred by the group were kept. Overall feedback included

that they had found it very interesting to think about these issues, but that it was a hard thing to do to make these decisions, especially for those who were not clinicians. Participants all stated that they would recommend their friends and family to take part in the study as it had felt important to them.

2.7.1. Order of measures

Demographic questions (including about political leaning and access to health) were placed at the end of the questionnaire for a number of reasons. Allen (2017) stated that it allows a fatigued participant to complete the survey because demographic and personal questions are less tiring to answer. Additionally, participants may be more willing to answer personal questions if these are not at the beginning of the questionnaire as they are more invested in the study (Allen, 2017). The final order of the material was as follow: three eligibility demographic questions; the six vignettes; the MFQ; the MHLC (the two latter were presented on a randomised basis in order to minimise order bias; [Lavrakas, 2012]) and the demographic questions (including in this order: basic demographic questions then perceived access to health questions); and the political questionnaires.

2.8. Procedure

2.8.1. Link to the study and informed consent

Participants were invited to click on a link (the study's Uniform Resource Locator) leading to the Qualtrics website. The first page was preceded by the PIS (Appendix E) and a consent form that offered information statements to tick as a way of consenting (Appendix F). Participants were not allowed to continue to the study until they had ticked all necessary consenting statements. Participants were also asked to generate a four-digit ID code, so they could be identified should they wish to withdraw and reminded of their right to do so.

2.8.2. Data collection

After obtention of the consent, participants were invited to choose one of four statements out of four for each vignette, following which they were asked to respond to a range of standardised questionnaires (as detailed in the material section) and personal questions. Completing the questionnaires was expected to take 20-30 minutes.

2.8.3. Post-participation procedure

After completing the survey, participants were taken to a debrief page where they were given information about relevant organisations they could contact should they experience psychological discomfort.

Due to the time commitment required to take part in the study, participants were given the opportunity to enter a prize draw for 4 x £25 Amazon voucher. It was hoped that the gesture would be interpreted as a token of the researcher's appreciation of participants' time and effort. To be entered in the draw, participants entered their emails after completing the study. A random number generator was used to pick the winning participant, and those chosen were emailed the results and a voucher. All participants who requested will be emailed a summary of the findings.

2.9. Analytic strategy and sample size considerations

2.9.1. Quantitative data analysis

Quantitative data was analysed using SPSS (version 27). Descriptive statistics were provided for participants demographics and for each measure. Frequency analysis and pairwise multiple comparison tests were computed (Chi-Squares of association, Kruskal Wallis [KW] and Dunn's Post hoc tests) to explore the differences in PHRA (scores on vignettes) based on demographics groups and questionnaires' scores.

Sample-size calculations (with G*Power 3.1 software) indicated that 542 participants were required to detect a small effect size (0.2) at a power of .90 (Faul et al., 2007) on the Chi-Square (also appropriate for KW). Pearson's correlations were calculated to explore relationships between variables and power calculations indicated that at least 237 participants were needed to obtain a small effect size at a power of .90 (Faul et al., 2007). Therefore, the sample size sought was 542 or above; the present study (N=549) had adequate power.

2.9.2. Considerations for Study Analysis

The use of categorical data in research brings a range of methodological issues, however, they often allow for detailed analysis (Hagenaars, 2015). The initial analysis considered was multinomial regression analysis, however, this was impossible due to low cell count for certain variables. A range of reasons may have led to this issue such as the low numbers of respondents with more conservative thinking, low numbers of males and lack of variety in some educational categories. It is thought that excessive amounts of variable grouping can create ecological fallacy and create model bias (Selvin, 1987). As such, limited amounts of aggregation were carried out and Chi-Squares and KW analysis were therefore chosen for analysis. Whilst the Chi-Square statistic has limitations (e.g., difficulties of interpretations with large numbers of categories and the Cramer's V likelihood to reduce relative low correlation measure even for highly significant results), it is also robust with respect to the data distribution and provides rich and detailed information about how groups presented in the study (McHugh, 2012). Chi-square analysis must be followed by a strength statistic, and Cramer's V was considered appropriate. However, McHugh's (2012) warning about Cramer's V low correlation measures suggesting findings may be important even where strength value is relatively low were held in mind.

Where it was not possible to use the Chi-Square due to low cell count, Freeman-Halton-Fisher Exact (FHFE) tests were used, due to the precision of the test (Freeman & Halton, 1951). In order to minimise the use of FHFE tests, grouping of some variables was used in places and therefore changed some of the analysis. For example, the data about religion was used to measure whether a person is religious or not, rather than comparing different religions. The second test used in this study is KW (H test). This test is based on ranking the data in a way that allows comparisons between three or more groups. There are several advantages to using ranks rather than for example ANOVA for example (which is the parametric equivalent). Firstly, calculation is simplified by the use of ranks. Secondly, the kind of distributions from which the observations arise only require minimal assumptions. Thirdly, when assumptions of the parametric tests are not met then the test may fail to detect the kind of differences of real interests (Chan & Walmsley, 1997). A limitation is the loss of information related to the spread of

the data, however, KW has been shown to be consistent against alternative parametric tests when used with large samples (Kruskal, 1952) and the non-parametric KW test was found to perform better with asymmetric populations than the parametric equivalent ANOVA method (Van Hecke, 2012). The post hoc Dunn test with Bonferroni correction was used to control for Type 1 Error as per Dunn's procedure (1964). This allowed for detailed comparison between groups based on mean ranks (mr).

2.9.3. Content analysis

Content Analysis was chosen as a quantitative method to analyse text boxes in the survey and to categorise meanings extracted from qualitative data (Hsieh & Shannon, 2005). For each participant, data was reviewed and coded, and categories were developed using Excel. Frequency of a concept was counted and presented in a table. Categories were defined and conclusions were drawn where possible.

3. RESULTS

3.1. Overview

This chapter offers a descriptive analysis of the participants who completed the online survey. The details of each analysis are reported and organised by research question. Differences in PHRA (options chosen on vignettes) based on demographics groups and questionnaires (as defined in the methods) are explored. A content analysis is presented on vignette text provided by participants.

3.2. Participant characteristics

3.2.1. Initial sample

The survey, presented on the Qualtrics Software, was accessed by 876 participants, and 736 completed consent and eligibility questions (age and length of time in the UK). Out of these, 610 participants answered questions until the 6th vignette; 586 completed the Multidimensional Health Locus of Control Measure (MHLC); 581 completed the Moral Foundation Questionnaire (MFQ); 573 completed the demographic questions; 571 completed the health access and discrimination questions. 568 completed the survey until the end. Therefore, 64.84% of those who clicked on the link completed the full survey, 69.63% responded to all the vignettes, and there was a 35.16% dropout rate. Most participants dropped out at the point of consent. Data from non-completers were deleted because exiting the study was defined as withdrawal in the PIS. Data from participants who had omitted up to four responses to demographic questions were kept as it was thought this may be because participants did not want to be identifiable. One participant who agreed to the questions but whose data showed that they had not been in the UK for 3 years was also removed.

Completion time was then analysed. The average time of completion was 5693 seconds (SD=33368s, min:588s; max:589455s), however, the software did not take in consideration participants who completed in multiple sittings or those who

had to start the study again because they had lost their initial results). Therefore, this data was not considered as useful. Data from people whose time was short < 10mins was analysed for consistency and removed (six participants) when it appeared that their answer had been inputted inattentively. The MFQ offers two items highlighting participants who do not pay attention. Thirteen participants who scored highly on these were removed (Graham et al., 2011).

3.2.2. Missing data

Missing data was low and only present in the demographic section. This represented 0.63% of the overall data (3.46% of the demographic section). Most of the missing data appeared in ethnicity, sexuality, yearly earnings, and job roles.

Missing data was counted as a distinct category. Data missing completely at random in other demographic variables had no specific pattern. There was no missing data at scale-level (no participant had missed an item on a questionnaire, jeopardising the validity of the scale). Data missing on these demographics were not considered as meaningful omission and were only excluded from analysis using pairwise deletion. It is not recommended to delete a whole case with item-level missing data because it would lead to the loss of entire cases for minimal amounts of missing data (Davey & Savla, 2009).

3.2.2.1. Non-completers

There was a five-participant differences between those who had completed the study and those who had not but provided some demographic information. Therefore, non-completer analyses were not performed, and these partial responses were not computed.

3.2.3. Sample characteristics

Table 1 and 2 present the demographic characteristics of the participants and demonstrates that the majority of the participants were female (81.8%), between 31 and 45 years old (44.6%), born in the UK (83.6%), had UK citizenship (87.4%) and were White (74.4%). The most frequent childhood religion was Christianity (53.7%) while 22.4% of the sample did not currently have a religion, with another

20.8% describing themselves as atheists. Seventy percent of the sample described their sexuality as heterosexual. Only 9.9% of the sample identified as having a disability. A full list of ethnicities, religions and sexual orientations provided by participants is presented in Appendix Q. Some of these categories were merged for analysis purposes.

Table 1

Sample Demographic Characteristics

| | N (%) |
|----------------------------------|--------------|
| Age | |
| | N=549 |
| 18-30 | 165 (30.1) |
| 31-45 | 245 (44.6) |
| 46-60 | 101 (18.4) |
| 61-79 | 38 (6.9) |
| Gender | |
| Female | 449 (81.8) |
| Male | 91 (16.6) |
| Non-Binary/gender queer/ 'other' | 6 (1.1) |
| Prefer not to say | 1 (0.2) |
| Missing | 2 (0.4) |
| Childhood Country | |
| UK | 459(83.6) |
| Europe | 38 (6.8) |
| Caribbean | 2 (0.4) |
| Africa | 6 (1.1) |
| North America | 8 (1.5) |
| South America | 3 (0.5) |
| South Asia | 4 (0.7) |
| Oceania | 5 (0.9) |
| Middle East | 5 (0.9) |
| Mix of countries | 18 (3.3) |
| Missing | 1 (0.2) |
| Current country | |
| UK | 543 (98.9) |
| Other | 6 (1.1) |
| Ethnicity | |
| White | 394 (71.8) |
| Black | 15 (2.7) |
| Asian | 20 (3.6) |
| Arab/Middle Eastern | 5 (0.9) |
| Mixed Heritage | 30 (5.5) |
| Other | 6 (1.1) |
| Missing/PNTS | 79 (14.4) |
| Sexuality | |
| Straight | 381 (69.4) |
| Gay/ bisexual/ queer | 67 (12.2) |
| Asexual/questioning | 6 (1.1) |
| Missing/PTNS | 95 (17.3) |

Table 2

Sample Demographic Characteristics (continued)

| Characteristic | N(%) |
|-----------------------------|-------------|
| Childhood religion | |
| Christian | 295(53.7) |
| Hindu | 6 (1.1) |
| Islam | 26(4.7) |
| Jewish | 10 (1.8) |
| Spiritual but not religious | 18 (3.3) |
| Atheist | 56 (10.2) |
| Agnostic | 27 (4.9) |
| Sikhism | 2 (0.4) |
| Budhhist | 2 (0.4) |
| None | 89 (16.2) |
| Other | 15 (2.7) |
| Missing | 3 (0.5) |
| Current religion | |
| Buddhist | 6 (1.1) |
| Christian | 104 (18.9) |
| Hindu | 3 (0.5) |
| Islam | 19 (3.5) |
| Jewish | 5 (0.9) |
| Spiritual but not religious | 84 (15.3) |
| Atheist | 114 (20.8) |
| Agnostic | 27 (4.9) |
| Sikhism | 2 (0.4) |
| Paganism | 3 (0.5) |
| None | 123 (22.4) |
| Other | 15 (2.7) |
| Missing | 3 (0.5%) |
| Immigration status | |
| UK Citizen | 480 (87.4) |
| EU citizen | 49 (8.9) |
| Visa Holder | 10 (1.8) |
| Other | 10 (1.8) |
| Disability | |
| Yes | 50 (9.1) |
| No | 499 (90.9) |

Table 3 presents the wide range of reported yearly income; the two most frequent categories were £20000-£40000 (25.7%) and £40000-£60000 (20.9%). Where income brackets (e.g., £40000-£70000) were provided by participants, the highest income was chosen as it was assumed to be relevant to the household income. Job roles included 52.6% of participants in general jobs (that is, not in health and social care), 23% of the sample worked in health and social care and 6.9% worked in physical healthcare. Where several job titles were given, the first one listed was selected. Out of this sample, 28.4% had finished sixth-form or degree-level qualifications. Financial situations had improved over the last ten years for 61.6% of participants and comparing themselves to the rest of the population, 27% the participants rated their resource level as 7/10 (with 10 having access to the most resources).

Table 3

Sample Educational and Financial Characteristics

| Characteristics | N (%) |
|---|--------------|
| Education Level | |
| Did not complete high school | 2 (0.4) |
| Completed high school | 36 (6.6) |
| Currently in college/university | 46 (8.4) |
| Completed college/university | 156 (28.4) |
| Currently in postgraduate/professional school | 70 (12.8) |
| Completed post graduate/professional school | 239 (43.5) |
| Job sector | |
| General (non-health related jobs) | 289 (52.6) |
| MH and social care | 126 (23) |
| Physical health roles | 38 (6.9) |
| Stay at home parent/house spouse | 13 (2.4) |
| Unemployed | 9 (1.6) |
| Retired | 27 (4.9) |
| Student | 23 (4) |
| Missing/Prefer not to say | 25 (4.6) |
| Yearly income | |
| £0-20 000 | 53 (9.7) |
| £20 001-40 000 | 141 (25.7) |
| £40 001-60 000 | 115 (20.9) |
| £60 001-80 000 | 68 (12.4) |
| £80 001-100 000 | 48 (8.7) |
| £100 001+ | 45 (8.2) |
| Unsure/ Prefer not to say/ missing | 79 (14.4) |
| Comparison with others' situation | |
| 1 - the least resources | 6 (1.1) |
| 2 | 7 (1.3) |
| 3 | 22 (4) |
| 4 | 27 (4.9) |
| 5 | 81 (14.8) |
| 6 | 95 (17.3) |
| 7 | 148 (27) |
| 8 | 111 (20.2) |
| 9 | 36 (6.6) |
| 10 – the most resources | 16 (2.9) |
| Evolution of financial situation over 10 years | |
| Worsened | |
| Stayed the same | 107 (19.5) |
| Improved | 104 (18.9) |
| | 338 (61.6) |

Table 4, regarding perceived access to health resources, demonstrates that 72.2% of the sample felt they have overall a good or above level of health, but that 45.7% of the sample have a long-lasting illness. Out of those who had needed a medical examination in the last 12 months (N=335), 30.3% had been unable to access one. Out of those who did not have access to medical examinations (N=102), reasons included electing to wait to see if the problem would get better (34.3%) and being on a waiting list (26.5%) as their main reasons.

Table 4*Sample Access to health questions*

| | Sample N | N (%) | Whole sample % |
|---|----------------------------|------------|----------------|
| Health status | N=549 | | |
| Very good | | 126 (23) | |
| Good | | 270 (49.2) | |
| Fair | | 128 (23.3) | |
| Bad | | 21 (3.8) | |
| Very bad | | 4 (0.7) | |
| Longlasting illness (>6 months) | N=549 | | |
| Yes | | 251 (45.7) | |
| No | | 298 (54.3) | |
| Ability to have medical examination when needed (last 12 months) | N=335 ¹ | | |
| Yes | | 233 (69.6) | 42.4 |
| No | | 102 (30.4) | 18.6 |
| Reasons for lack of access | N=102 (18.58) ² | | |
| Waiting list length | | 27 (26.5) | 4.9 |
| Inability to take time off | | 4 (3.9) | 0.7 |
| Fear of medical treatment | | 3 (2.9) | 0.5 |
| Not knowing a good specialist or doctor | | 2 (2) | 0.4 |
| Wanted to wait and see if the problem got better | | 35 (34.3) | 6.4 |
| COVID-19 | | 18 (17.7) | 3.3 |
| Other | | 13 (12.8) | 2.37 |
| Discrimination in the health service – reason³ | N=161 (29.33%) | | |
| Skin colour | | 12 (7.45) | 2.2 |
| Ethnic/immigration background | | 20 (12.42) | 3.6 |
| Religion/religious background | | 3 (1.86) | 0.5 |
| Age (such as being too old or too young) | | 60 (37.27) | 10.9 |
| Sex/gender | | 76 (47.2) | 13.8 |
| Disability | | 12 (7.45) | 2.2 |
| Sexual orientation | | 14 (8.7) | 2.6 |
| Other | | 32 (19.88) | 5.8 |

Table 5 presents responses to political questions (additional items that were not covered by the BSA scales). Close to half of the sample considered themselves as political party supporters (51.4%) and 59.9% of the sample stated that they would vote Labour if there was an election tomorrow. Most of the sample was against leaving the EU (80.5%).

¹ Rest of sample did not need an examination

² Rest of sample did not need an examination or did have access

³ Participants could select multiple responses

Table 5
Political demographics

| | N (%) |
|--|--------------|
| Considering oneself as a supporter from a political party | N=549 |
| Yes | 282 (51.4) |
| No | 267 (48.6) |
| <hr/> | |
| If there was an election tomorrow: party supporting | N=548 |
| Conservative | 44 (8) |
| Labour | 329 (59.9) |
| Liberal Democrat | 38 (6.9) |
| Scottish National Party | 7 (1.3) |
| Green Party | 55 (10) |
| Brexit Party | 2 (0.4) |
| RESPECT/Scottish Socialist party/Socialist party | 2 (0.4) |
| Other party | 3 (0.5) |
| Other (incl. PNTS, don't know, critics of the current systems) | 23 (4.2) |
| None | 45 (8.2) |
| <hr/> | |
| Relationships to Brexit | |
| Leavers | 48 (8.7) |
| Remainers | 442 (80.5) |
| Other | 59 (10.7) |

3.2.4. Comparison with the UK population

There were some differences between the study sample and the UK estimated population. Only 20% of the sample was male, in contrast to 49.4% across the UK. The sample ethnic groups were fairly similar in representation to that of the UK, however, only 71.8% of the sample defined themselves as White, as compared to 86% in the UK. 3.3% of the UK self-defined in Black ethnic groups, which represented 2.7% of the study sample, and 3.6% of the sample defined themselves as Asian (7.5% of the UK). The study had more participants from 'mixed heritage' than the UK estimated population (5.5.% vs 2.2.%). 'Other' groups represented 1% for both the UK and the present sample. These results were taken from the last Census in 2011 and therefore the UK population may have changed since. In 2019, 14% of people in the UK were born outside of the UK which was just under the present sample (16.4%). Religions as recorded in the Census were close to the childhood religion numbers. The study included

9.1% of people with a disability which differs from the 21% estimated in the UK population (Department for Work and Pensions, 2018).

3.3. Data distribution

3.3.1. Parametric assumptions

Although skewness and kurtosis were in the acceptable range (-1/+1, Field 2017) on all subscales (MFQ, MHLC and BSA subscales), a visual examination of the data (Q-plots, appendix R) suggested that some shapes and spreads may indicate that scores were not normally distributed (e.g. BSA subscales). As a result Kolmogorov-Smirnoff was used to test normality of the sample (Berger & Zhou, 2014). It showed that the distribution was indeed significantly non-normal on all subscales and that non-parametric tests should be used (Chan & Walmsley, 1997).

Much debate about how to treat of outliers remains (Cousineau & Chartier, 2010; Leys et al., 2013). Consideration was given to removing cases that did not fall within normal distribution; however, when the scores come from the population of interest, removal of the cases is not recommended (Field, 2017). This was especially the case here, as the researcher was interested in the range of beliefs experienced by participants.

Table 6

Score Distribution on Questionnaires Used (MFQ, MHLC and BSA Subscales)

| Subscales | N= | Mean (SD) | SEM | Mode (Med) | Min- Max | Kurtosis | Skew- ness | K-S |
|--------------|-----|-----------------|-------|----------------|-------------|----------|---------------|-------------------------|
| MFQCare | 549 | 21.32 (4.16) | .178 | 22 (22) | 6-30 | 0.20 | -0.43 | D(549)=0.07, p<0.001 |
| MFQFairness | 549 | 21.50 (4.05) | .173 | 22 (22) | 5-30 | 0.69 | -0.56 | D(549)=0.09, p<0.001 |
| MFQLoyalty | 549 | 9.65 (4.93) | .21 | 9 (8)* | 0-26 | -0.07 | 0.44 | D(549)=0.08, p<0.001 |
| MFQAuthority | 549 | 11.56 (5.13) | .22 | 11 (11) | 0-25 | -0.46 | 0.15 | D(549)=0.06, p<0.001 |
| MFQSanctity | 549 | 9.00 (6.03) | .26 | 8 (6) | 0-27 | 0.47 | -0.51 | D(549)=0.09, p<0.001 |
| IHLC | 549 | 23.61 (4.57) | .195 | 24 (24) | 6-35 | 0.51 | -0.39 | D(549)=0.06, p<0.001 |
| PHLC | 549 | 15.37 (4.48) | .191 | 16 (15) | 6-31 | 0.15 | 0.36 | D(549)=0.08, p<0.001 |
| CHLC | 549 | 18.30 (4.71) | .200 | 20(18) | 6-35 | -0.09 | 0.11 | D(549)=0.06, p<0.001 |
| BSALR | 549 | 1.96 (0.73) | 0.031 | 1.60 (1.80) | 1-4.80 | 0.71 | 0.95 | D(549)=0.13, p<0.001 |
| BSALA | 549 | 2.51 (0.86) | 0.037 | 2 (2.5) | 1-5 | -0.33 | 0.39 | D(549)=0.07, p<0.001 |
| BSAWS | 549 | 2.00 (0.84) | 0.036 | 1.00 (1.88) | 1.4-7.5 | -0.36 | 0.69 | D(549)=0.12, p<0.001 |

*Multiple modes exist. The smallest value is shown.

3.3.2. Internal consistency of the questionnaires

Cronbach's alpha (α) was calculated to assess the internal reliability of the questionnaires used (MFQ, MHLC and BSA subscales) for the current sample. They are presented in Table 7. Two of the MFQ subscales were below acceptable consistency levels ($<.50$); possible reasons for this will be explored in the Discussion. Three subscales (one from MFQ and two from MHLC) were in the questionable range (0.60-0.69). Six subscales (two from the MFQ, one from the MHLC and three from the BSA) were in the acceptable, good, or excellent ranges ($>.70$, Field, 2017).

Table 7

Internal consistency of measures

| Measures' subscales | Cronbach's alpha |
|--|------------------|
| Moral Foundation Questionnaire – Care subscale (MFQCare) | 0.46 |
| Moral Foundation Questionnaire – Fairness subscale (MFQFairness) | 0.49 |
| Moral Foundation Questionnaire – Loyalty subscale (MFQLoyalty) | 0.67 |
| Moral Foundation Questionnaire – Authority subscale (MFQAuthority) | 0.75 |
| Moral Foundation Questionnaire – Sancity subscale (MFQSanctity) | 0.78 |
| Internal Health Locus of Control – (IHLC) | 0.77 |
| Powerful Others Health Locus of Control – (PHLC) | 0.63 |
| Chance Health Locus of Control – (CHLC) | 0.65 |
| British Social Attitude – Left/Right (BSALR) | 0.79 |
| British Social Attitude – Libertarian/Authoritative (BSALA) | 0.80 |
| British Social Attitude – Welfarism (BSAWS) | 0.91 |

Consideration was given to the internal validity of the six vignettes. Cronbach alpha is not appropriate for categorical variables such as these vignettes, which are scored discrete dimensions. Based on the study aims to assess preferences for a different group/issue in each vignette and the generation of categorical data through scoring dimensions, the responses were initially visually explored across vignettes as to examine whether option choice on one vignette was generalisable to others. This suggested differences in scoring dimensions across the six vignettes. Therefore, each vignette score was explored separately rather than

amalgamating scores across vignettes. Doing so would have resulted in the loss of meaningful information.

Pearson's correlations (r) between the questionnaires' subscales were calculated to confirm links between some of these concepts made by the literature, and to assess for multicollinearity. There were presented in Table 8. No correlation was above 0.8 which indicates no multicollinearity (Field, 2017).

Table 8

Pearson's Correlation for Independent Variable Subscales

| | | MFQCare | MFQFair- ness | MFQLoy- alty | MFQAuthor- ity | MFQSanc- tity | PHLC | HLCIn- ternal | HLC- Chance | BSALR | BSALA |
|-------------------|----------|---------|------------------|-----------------|-------------------|------------------|--------|------------------|----------------|--------|--------|
| MFQCare | <i>r</i> | | | | | | | | | | |
| | <i>p</i> | | | | | | | | | | |
| MFQFairness | <i>r</i> | 0.56* | | | | | | | | | |
| | <i>p</i> | <0.001 | | | | | | | | | |
| MFQLoyalty | <i>r</i> | 0.28* | 0.08* | | | | | | | | |
| | <i>p</i> | <0.001 | 0.048 | | | | | | | | |
| MFQAuthor- ity | <i>r</i> | 0.20* | 0.036 | 0.74* | | | | | | | |
| | <i>p</i> | <0.001 | .394 | <0.001 | | | | | | | |
| MFQSanctity | <i>r</i> | 0.26* | 0.01 | 0.65* | 0.72* | | | | | | |
| | <i>p</i> | <0.001 | 0.812 | <0.001 | <0.001 | | | | | | |
| PHLC | <i>r</i> | 0.06 | 0.08 | 0.17* | 0.16* | 0.17* | | | | | |
| | <i>p</i> | 0.158 | 0.051 | <0.001 | <0.001 | <0.001 | | | | | |
| HLCInternal | <i>r</i> | 0.03 | -0.08 | 0.25* | 0.32* | 0.25* | -0.05 | | | | |
| | <i>p</i> | 0.44 | 0.075 | <0.001 | <0.001 | <0.001 | 0.212 | | | | |
| HLCChance | <i>r</i> | -0.05 | -0.01 | 0.03 | -0.01 | -0.02 | 0.18* | -0.32* | | | |
| | <i>p</i> | 0.213 | 0.795 | 0.502 | 0.800 | 0.700 | <0.001 | <0.001 | | | |
| BSALR | <i>r</i> | -0.11* | -0.35* | 0.29* | 0.34* | 0.31* | -0.02 | 0.20* | -0.50 | | |
| | <i>p</i> | 0.007 | <0.001 | <0.001 | <0.001 | <0.001 | 0.676 | <0.001 | 0.282 | | |
| BSALA | <i>r</i> | -0.01* | -0.21* | 0.55* | 0.64* | 0.64* | 0.16* | 0.30* | 0.02 | .38* | |
| | <i>p</i> | .900 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.674 | <0.001 | |
| BSAWS | <i>r</i> | -0.04* | -0.25* | 0.48* | 0.53* | 0.52* | 0.05 | 0.31* | 0.03 | 0.50* | 0.68* |
| | <i>p</i> | 0.40 | <0.001 | <0.001 | <0.001 | <0.001 | 0.205 | <0.001 | 0.524 | <0.001 | <0.001 |

3.3.3. Scores on Vignettes

Scores for each vignette are presented in Table 9. They show that this sample favoured D1 in 45.9% of cases, D2 in 41%, D4 in 12.9% of cases and D3 in 5.1% of cases. However, some differences to this trend can be observed for V4 (regarding HIV prevention drugs), where lower priority (based on responsibility) was selected for 27.8% of participants and for V3 (regarding emergency care for non-UK residents) where D3 (priority based on contributions) was chosen by 11.7% of respondents.

Table 9
Vignette Scores (N=549)

| | (D1) Priority based on vulnerability N(%) | (D2) Priority based on cost efficiency N(%) | (D3) Priority based on contribution N(%) | (D4) Priority based on re- sponsibility N(%) |
|--|--|--|---|---|
| V1 – Liver trans- plant/alcoholism | 171 (31.1) | 251 (45.7) | 31 (5.6) | 96 (17.5) |
| V2 – Skin graft/self- harm | 338 (61.6) | 167 (30.4) | 21 (3.8) | 23 (4.2) |
| V3 – Emergency care for non-UK resident | 197 (35.9) | 242 (44.1) | 64 (11.7) | 46 (8.4) |
| V4 – HIV prevention | 173 (31.5) | 196 (35.7) | 27 (4.9) | 153 (27.9) |
| V5 – MH treatment | 369 (67.2) | 132 (24) | 10 (1.8) | 38 (6.9) |
| V6 – COVID-19 | 293 (53.4) | 170 (31) | 15(2.7) | 71 (12.9) |
| Mean number of participants | 252 (45.9) | 225 (41) | 28 (5.1) | 71 (12.9) |

3.4. RQ 1 - Are there significant differences in PHRA based on demographic characteristics, political leaning, moral judgement domains, health locus of control and perceived access to healthcare?

The first research question asked whether there were differences between the preference endorsed (1: vulnerability-based; 2: cost-efficiency-based; 3: contribution-based; 4: responsibility-based) on each vignette for each of the following independent variables: demographics (including perceived access to healthcare and political demographics), scores on subscales of the MFQ, the MHLC and political BSA questionnaires. To explore differences, data were separated into categorical (RQ1a) and continuous variables (RQ1b).

3.4.1. RQ 1a: Chi Squares for Associations

To establish whether there were associations between the vignette option chosen and demographic characteristics (including access to health and political demographics), Chi-Square for Association and Cramers' V analysis were computed. When expected cells were less than five for more than 20% of cells, grouping of data was used (that is some categories were merged to create higher case numbers by cells), where this was impossible due to meaning loss (Field, 2017), Fisher-Freeman-Halton Exact (FFHE) test was carried out (Freeman & Halton, 1951). Appendix S specifies which data was merged into larger categories. For each vignette, Chi-Square analyses were reported where there was a significant association between vignette scores and demographic characteristic, meaning that observed and expected scores on the vignettes were significantly different. None of the significant effect sizes calculated with Cramer's V were above 0.2, which suggests that statistical associations had small effects (Cohen, 1992). These are summarised in Appendix T.

For V1 (regarding Liver Transplant/Alcoholism), being currently religious ($\chi^2(3, 549)=10.28, p=0.016; V=0.14$), job types ($\chi^2(9, 549)=16.92, p=0.050; V=0.10$); income category ($\chi^2(18, 549)=28.87, p=0.050; V=0.13$), positions related to Brexit ($\chi^2(6, 549)=16.94, p=0.010; V=0.12$), party identification ($\chi^2(12, 549)=26.21, p=0.010; V=0.13$), and those who had been discriminated against in the health services based on their sexual orientation (FFHE(3,549)=7.44, $p=0.043; V=0.12$) were significantly associated with vignette option choice, meaning that observed and expected scores were significantly different.

The second vignette (relating to self-harm) showed that job types (FFHE(9, 549)=25.22, $V=0.12, p=0.001$), positions regarding Brexit ($\chi^2(6, 549)=32.94, p<0.001, V=0.17$); identifying as political party supporters ($\chi^2(3, 549)=8.56, p=0.036; V=0.13$), and political party identification (FFHE(12, 549)=45.45, $p<0.001; V=0.17$) were significantly associated with vignette option choice, meaning that observed and expected scores were significantly different.

For V3, regarding emergency care for non-UK residents, age ($\chi^2(9, 549)=25.79, p=0.002, V=.125$), education level ($\chi^2(6, 549)=21.02, p=0.002; V=0.14$), ethnicity ($\chi^2(6, 549)=16.78, p=0.010; V=0.12$), having a religious childhood ($\chi^2(3, 549)=7.92, p=0.046; V=0.12$), being currently religious ($\chi^2(3, 549)=9.15, p=0.027; V=0.13$), job types ($\chi^2(9, 549)=19.30, p=0.023; V=0.11$), positions regarding Brexit ($\chi^2(6, 549)=36.77, p<0.001; V=0.18$), party identification ($\chi^2(12, 549)=39.68, p<0.001; V=0.16$), and having been discriminated against based on gender or sex in the health services ($\chi^2(3, 549)=12.16, p=0.007, V=0.15$) were significantly associated with vignette option choice, meaning that observed and expected scores were significantly different.

Age ($\chi^2(9, 549)=29.20, p<0.001, V=0.133$), country of birth ($\chi^2(3, 549)=10.01, p=0.019; V=0.14$), ethnicity ($\chi^2(6, 549)=16.78, p=0.010; V=0.12$), sexuality ($\chi^2(6, 549)=14.70, p=0.023; V=0.12$), being currently religious ($\chi^2(3, 549)=12.02, p=0.007; V=0.15$), job types ($\chi^2(9, 549)=18.35, p=0.031; V=0.11$), having a disability ($\chi^2(3, 549)=9.34, p=0.026; V=0.13$), positions regarding Brexit ($\chi^2(6, 549)=36.77, p<0.001; V=0.18$), identifying as party supporters ($\chi^2(3, 549)=12.09, p=0.007; V=0.15$), political party identification ($\chi^2(12, 549)=41.51, p<0.001;$

V=0.16), and having been discriminated against in the health services based on sexual orientation (FFHE(3,549)=7.59, $p=0.04$; V=0.12) were significantly associated with vignette option choice, meaning that observed and expected scores were significantly different in the fourth vignette on the use of PreP to prevent HIV.

For V5, on ongoing MH treatment, age ($\chi^2(9, 549)=28.66$, $p<0.001$, V=0.13), having had a religious childhood ($\chi^2(3, 549)=8.00$, $p=0.046$; V=0.12), and political party identification (FFHE (12, 549)=29.96, $p<0.001$; V=0.14) were significantly associated with vignette option choice, meaning that observed and expected scores were significantly different.

Age ($\chi^2(9, 549)=22.75$, $p=0.007$, V=0.118) and job type (FFHE(9, 549)=24.82, $p=0.001$; V=0.12) were significantly associated with vignette statement choice in that observed and expected scores were significantly different for vignette six on COVID-19 treatment.

Significant post hoc tests using pairwise comparisons with Bonferroni Corrections are reported in Appendix U. These offer detailed information of the pairwise and cell value (adjusted standardised residual) significance and offer a valuable insights into which groups of people were more proportionally likely to choose each vignette option.

3.4.2. RQ 1b: Differences in vignette scores for standardised questionnaires

A Multinomial Logistic Regression was attempted to calculate associations and predictions between the predictors and the dependent variables, however, due to low cell counts in some of the categories, this was not possible. Although it was computed, results were not reliable and are not reported (Fienberg, 2007a, 2007b). Reasons for low count cells will be discussed in the limitations section of the Discussion. Differences between means were used to establish relationships. Nonparametric multivariate KW analysis were computed to investigate whether vignette scores were statistically different depending on scores on 11 subscales (MFQCare, MFQFairness, MFQAuthority, MFQSanctity, MFQLoyalty, CHLC,

PHLC, IHLC, BSALR, BSALA, BSAWS). Distributions of subscale scores were not similar for all groups, as assessed by visual inspection of a boxplot (Appendix V) and therefore, judgements were based on the differences in distributions, lower/higher scores and/or mean ranks. Statistical significance was accepted if $p < 0.05$ and only significant results are reported. Table 10 presents the mean ranks used in KW analyses.

The mean ranks for scores on MFQFairness ($\chi^2(3)=13.99$, $p=0.003$, $\epsilon^2=0.05$); MFQLoyalty ($\chi^2(3)=13.54$, $p=0.004$, $\epsilon^2=0.10$); MFQAuthority ($\chi^2(3)=39.47$, $p < 0.001$, $\epsilon^2=0.11$); MFQSanctity ($\chi^2(3)=31.77$, $p < 0.001$, $\epsilon^2=0.08$); IHLC ($\chi^2(3)=18.12$, $p < 0.001$, $\epsilon^2=0.07$); BSALR ($\chi^2(3)=34.74$, $p < 0.001$, $\epsilon^2=0.08$); BSALA ($\chi^2(3)=67.11$, $p < 0.001$, $\epsilon^2=0.18$); and BSAWS ($\chi^2(3)=80.79$, $p < 0.001$, $\epsilon^2=0.18$) were significantly different for options given in response to V1.

The mean ranks for scores on MFQCare ($\chi^2(3)=10.98$, $p=0.012$, $\epsilon^2=0.06$); MFQFairness ($\chi^2(3)=28.49$, $p < 0.001$, $\epsilon^2=0.08$); MFQLoyalty ($\chi^2(3)=25.73$, $p < 0.001$, $\epsilon^2=0.10$); MFQ Authority ($\chi^2(3)=43.99$, $p < 0.001$, $\epsilon^2=0.12$); MFQSanctity ($\chi^2(3)=43.12$, $p < 0.001$, $\epsilon^2=0.13$); IHLC ($\chi^2(3)=32.67$, $p < 0.001$, $\epsilon^2=0.03$); BSALR ($\chi^2(3)=35.46$, $p < 0.001$, $\epsilon^2=0.09$); BSALA ($\chi^2(3)=77.65$, $p < 0.001$, $\epsilon^2=0.20$); BSAWS ($\chi^2(3)=95.29$, $p < 0.001$, $\epsilon^2=0.21$) were significantly different for options given in response to V2.

The mean ranks for scores on MFQFairness ($\chi^2(3)=30.65$, $p < 0.001$, $\epsilon^2=0.09$); MFQLoyalty($\chi^2(3)=37.81$, $p < 0.001$, $\epsilon^2=0.10$); MFQAuthority ($\chi^2(3)=62.95$, $p < 0.001$, $\epsilon^2=0.15$); MFQSanctity ($\chi^2(3)=61.17$, $p < 0.001$, $\epsilon^2=0.13$); IHLC ($\chi^2(3)=23.88$, $p < 0.001$, $\epsilon^2=0.03$); BSALR ($\chi^2(3)=44.07$, $p < 0.001$, $\epsilon^2=0.10$); BSALA ($\chi^2(3)=92.26$, $p < 0.001$, $\epsilon^2=0.23$); BSAWS ($\chi^2(3)=106.31$, $p < 0.001$, $\epsilon^2=0.25$) were significantly different for options given in response to V3..

The mean ranks for scores on MFQCare ($\chi^2(3)=12.32$, $p=0.006$, $\epsilon^2=0.07$); MFQ Fairness ($\chi^2(3)=30.65$, $p < 0.001$, $\epsilon^2=0.09$); MFQLoyalty ($\chi^2(3)=26.33$, $p < 0.001$, $\epsilon^2=0.08$); MFQAuthority ($\chi^2(3)=45.60$, $p < 0.001$, $\epsilon^2=0.09$); MFQSanctity ($\chi^2(3)=50.43$, $p < 0.001$, $\epsilon^2=0.11$); IHLC ($\chi^2(3)=15.50$, $p < 0.001$, $\epsilon^2=0.07$); BSALR ($\chi^2(3)=28.52$, $p < 0.001$, $\epsilon^2=0.09$); BSALA ($\chi^2(3)=65.68$, $p < 0.001$, $\epsilon^2=0.14$);

BSAWS ($\chi^2(3)=90.82$, $p<0.001$, $\epsilon^2=0.18$) were significantly different for options given in response to V4.

The mean ranks for scores on MFQCare ($\chi^2(3)=11.84$, $p=0.008$, $\epsilon^2=0.10$); MFQ Fairness scores ($\chi^2(3)=17.13$, $p<0.001$, $\epsilon^2=0.09$); MFQAuthority ($\chi^2(3)=13.30$, $p=0.004$, $\epsilon^2=0.11$); MFQSanctity ($\chi^2(3)=13.74$, $p=0.003$, $\epsilon^2=0.06$); IHLC ($\chi^2(3)=11.06$, $p=0.011$, $\epsilon^2=0.06$); BSALR ($\chi^2(3)=13.33$, $p=0.004$, $\epsilon^2=0.080$); BSALA ($\chi^2(3)=26.70$, $p<0.001$, $\epsilon^2=0.11$); BSAWS scores ($\chi^2(3)=23.05$, $p<0.001$, $\epsilon^2=0.11$) were significantly different for options given in response to V5.

The mean ranks for scores on MFQLoyalty ($\chi^2(3)=7.98$, $p=0.046$, $\epsilon^2=0.05$); MFQ Authority scores ($\chi^2(3)=17.19$, $p<0.001$, $\epsilon^2=0.07$); MFQSanctity ($\chi^2(3)=18.06$, $p<0.001$, $\epsilon^2=0.07$); IHLC ($\chi^2(3)=21.09$, $p<0.001$, $\epsilon^2=0.08$); BSALA ($\chi^2(3)=20.12$, $p<0.001$, $\epsilon^2=0.06$); BSAWS ($\chi^2(3)=29.09$, $p<0.001$, $\epsilon^2=0.09$) were significantly different for options given in response to V6.

Pairwise comparisons were performed using Dunn's (1964) procedure where initial KW results were significant. Adjusted significance was used in post-hoc tests and followed the Bonferroni correction procedure. The adjusted values for significant results of the post-hoc test can be found in Appendix V alongside the box-plot outputs and offer detailed results of specific differences between groups.

Table 10
Rank used for Significant KA Analyses

| | N V1 | M | N V2 | M | N V3 | M | N V4 | M | N V5 | M | N V6 | M |
|--------------|-------|-----------------------|--------------|-----------------|-------|-----------------|-------|-----------------|--------------|-----------------|--------------|-----------------|
| | | Ranks | | Ranks | | Ranks | | Ranks | | Ranks | | Ranks |
| MFQCare | 1=171 | 293.82** ⁴ | 1=338 | 291.99** | 1=197 | 291.82** | 1=173 | 295.83** | 1=369 | 289.12** | 1=293 | 281.58** |
| | 2=251 | 262.13* | 2=167 | 244.46* | 2=242 | 269.41 | 2=196 | 246.56 | 2=132 | 242.33 | 2=170 | 269.45 |
| | 3=91 | 271.79 | 3=21 | 277.69 | 3=64 | 277.11 | 3=27 | 245.07* | 3=10 | 184.55* | 3=15 | 224.40* |
| | 4=37 | 276.15 | 4=23 | 244.63 | 4=46 | 229.43* | 4=153 | 293.16 | 4=38 | 275.18 | 4=71 | 271.82 |
| MFQFairness | 1=171 | 306.82 | 1=338 | 298.90 | 1=197 | 319.11** | 1=173 | 312.24 | 1=369 | 294.14** | 1=293 | 284.36 |
| | 2=251 | 256.64 | 2=167 | 236.23 | 2=242 | 258.95 | 2=196 | 257.21 | 2=132 | 239.29 | 2=170 | 255.49* |
| | 3=91 | 314.35** | 3=21 | 310.86** | 3=64 | 258.20 | 3=27 | 312.44** | 3=10 | 253.95 | 3=15 | 290.10** |
| | 4=37 | 253.60* | 4=23 | 172.54* | 4=46 | 193.89* | 4=153 | 249.07* | 4=38 | 218.70* | 4=71 | 279.90 |
| MFQLoyalty | 1=171 | 245.94* | 1=338 | 248.50* | 1=197 | 223.11* | 1=173 | 244.43* | 1=369 | 266.74* | 1=293 | 265.85* |
| | 2=251 | 277.18 | 2=167 | 314.66 | 2=242 | 291.79 | 2=196 | 258.40 | 2=132 | 290.41 | 2=170 | 269.91 |
| | 3=91 | 278.65 | 3=21 | 305.26 | 3=64 | 336.31** | 3=27 | 357.48** | 3=10 | 330.55** | 3=15 | 353.27** |
| | 4=37 | 319.87** | 4=23 | 348.89** | 4=46 | 323.55 | 4=153 | 316.27 | 4=38 | 287.09 | 4=71 | 308.39 |
| MFQAuthority | 1=171 | 225.93* | 1=338 | 239.76* | 1=197 | 206.05* | 1=173 | 224.43* | 1=369 | 257.93* | 1=293 | 253.68* |
| | 2=251 | 283.51 | 2=167 | 334.95** | 2=242 | 301.27 | 2=196 | 258.40 | 2=132 | 307.89 | 2=170 | 283.07 |
| | 3=91 | 245.92 | 3=21 | 323.45 | 3=64 | 342.42** | 3=27 | 357.48** | 3=10 | 299.25 | 3=15 | 307.73 |
| | 4=37 | 349.55** | 4=23 | 313.43 | 4=46 | 338.27 | 4=153 | 316.27 | 4=38 | 320.12** | 4=71 | 336.74** |
| MFQSancity | 1=171 | 242.35 | 1=338 | 241.28 | 1=197 | 205.91* | 1=173 | 224.78* | 1=369 | 260.96* | 1=293 | 257.42* |
| | 2=251 | 271.66 | 2=167 | 325.87 | 2=242 | 307.38 | 2=196 | 263.20 | 2=132 | 292.91 | 2=170 | 272.96 |
| | 3=91 | 241.89* | 3=21 | 297.93* | 3=64 | 311.85 | 3=27 | 351.35** | 3=10 | 262.25 | 3=15 | 314.93 |
| | 4=37 | 352.59** | 4=23 | 380.20** | 4=46 | 349.27** | 4=153 | 333.43 | 4=38 | 352.46** | 4=71 | 343.99** |
| IHLC | 1=171 | 240.63* | 1=338 | 245.96* | 1=197 | 232.53* | 1=173 | 239.23* | 1=369 | 245.96* | 1=293 | 251.34* |
| | 2=251 | 283.75 | 2=167 | 320.38 | 2=242 | 292.22 | 2=196 | 281.60 | 2=132 | 320.38 | 2=170 | 285.00 |
| | 3=91 | 248.69 | 3=21 | 282.69 | 3=64 | 321.35** | 3=27 | 330.22** | 3=10 | 282.69 | 3=15 | 296.07 |
| | 4=37 | 321.85** | 4=23 | 365.30** | 4=46 | 301.82 | 4=153 | 297.25 | 4=38 | 365.30** | 4=71 | 344.23** |

⁴ *lowest mean score rank on the subscale; **highest mean score rank on the subscale; Results in bold were significant at pairwise comparison

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| | N V1 | M Ranks | N V2 | M Ranks | N V3 | M Ranks | N V4 | M Ranks | N V5 | M Ranks | N V6 | M Ranks |
|-------|--------------|-----------------------|--------------|-----------------|--------------|-----------------|--------------|-----------------|--------------|-----------------|--------------|-----------------|
| PHLC | 1=171 | 279.00 | 1=338 | 266.74* | 1=197 | 267.23 | 1=173 | 294.53 | 1=369 | 272.03* | 1=293 | 272.01 |
| | 2=251 | 271.06 | 2=167 | 287.64 | 2=242 | 285.92** | 2=196 | 261.50* | 2=132 | 276.35 | 2=170 | 271.39* |
| | 3=91 | 267.19* | 3=21 | 287.33 | 3=64 | 281.43 | 3=27 | 297.00** | 3=10 | 302.15** | 3=15 | 297.80** |
| | 4=37 | 280.69** | 4=23 | 293.39** | 4=46 | 241.87* | 4=153 | 266.33 | 4=38 | 291.99 | 4=71 | 282.89 |
| CHLC | 1=171 | 268.60 | 1=338 | 275.99 | 1=197 | 270.85* | 1=173 | 279.05 | 1=369 | 260.46* | 1=293 | 281.41** |
| | 2=251 | 275.39 | 2=167 | 282.64** | 2=242 | 275.76 | 2=196 | 281.83** | 2=132 | 298.41 | 2=170 | 269.92 |
| | 3=91 | 337.60** ⁵ | 3=21 | 248.74 | 3=64 | 274.30 | 3=27 | 261.93* | 3=10 | 283.90 | 3=15 | 278.80 |
| | 4=37 | 265.16* | 4=23 | 228.93* | 4=46 | 289.74** | 4=153 | 263.98 | 4=38 | 332.49** | 4=71 | 259.90* |
| BSALR | 1=171 | 228.61* | 1=338 | 244.49* | 1=197 | 216.28* | 1=173 | 231.08* | 1=369 | 271.52* | 1=293 | 265.54* |
| | 2=251 | 285.20 | 2=167 | 329.50 | 2=242 | 301.18 | 2=196 | 271.83 | 2=132 | 278.25 | 2=170 | 281.98 |
| | 3=91 | 240.02 | 3=21 | 271.00 | 3=64 | 316.96 | 3=27 | 322.50** | 3=10 | 338.50** | 3=15 | 312.10** |
| | 4=37 | 342.26** | 4=23 | 331.35** | 4=46 | 330.36** | 4=153 | 320.34 | 4=38 | 280.79 | 4=71 | 289.48 |
| BSALA | 1=171 | 210.29* | 1=338 | 228.82* | 1=197 | 192.44* | 1=173 | 220.04* | 1=369 | 252.00* | 1=293 | 255.51* |
| | 2=251 | 279.04 | 2=167 | 348.77 | 2=242 | 303.12 | 2=196 | 254.10 | 2=132 | 312.11 | 2=170 | 274.66 |
| | 3=91 | 290.34 | 3=21 | 307.55 | 3=64 | 340.23 | 3=27 | 332.20 | 3=10 | 306.10 | 3=15 | 361.10 |
| | 4=37 | 374.76** | 4=23 | 388.26** | 4=46 | 389.87** | 4=153 | 353.81** | 4=38 | 361.25** | 4=71 | 338.03** |
| BSAWS | 1=171 | 211.30* | 1=338 | 223.58* | 1=197 | 191.31* | 1=173 | 217.05* | 1=369 | 254.65* | 1=293 | 254.65* |
| | 2=251 | 270.82 | 2=167 | 355.18 | 2=242 | 298.61 | 2=196 | 242.66 | 2=132 | 301.89 | 2=170 | 301.89 |
| | 3=91 | 297.82 | 3=21 | 327.36 | 3=64 | 348.14 | 3=27 | 374.04** | 3=10 | 372.00** | 3=15 | 372.00** |
| | 4=37 | 391.82** | 4=23 | 400.63** | 4=46 | 407.43** | 4=153 | 364.48 | 4=38 | 353.68 | 4=71 | 353.68 |

⁵ *lowest mean score rank on the subscale; **highest mean score rank on the subscale; Results in bold were significant at pairwise comparison

3.5. RQ 2 - Do specific sets of variables (demographic characteristics, political beliefs, moral values, HLC and perceived access to healthcare) predict PHRA?

The relationships established between independent and dependent variables, as detailed above, suggest that a Multinomial Logistic Regression could provide useful results about whether any groups of variables could predict a vignette option chosen. However, when entering the data for Multinomial Logistic Regressions in SPSS, the low count cells led to an approximate goodness of fit and predictive analysis that was not reliable for this data. This was due to the low cell count present in the initial Chi-Squares. Furthermore, data had already had to be merged further than the researcher had intended, and additional category merging would have removed the meaning attributable to these analyses (Osborne, 2017).

Although a model of good fit and predictive analysis was not reliable, a master table (Table 11) shows various cell counts and allows for the summary data to be explored. As well as frequencies, means and standard deviations are provided for continuous data (MFQ, HLC and BSA subscales). Modes and proportions are given for categorical data (demographic characteristics). Although a number of trends can be observed in this data, only statistically significant results obtained through RQ1 analysis are retained. This data will be further summarized and considered in the Discussion section.

Table 11.

Master Table of Summary Data for each Vignette and Dimension

| Variables | V1 | | | | | V2 | | | | | V3 | | | | |
|---|------------------------------|---------------|-------------|--------------|--------------|---------------|---------------|-------------|-------------|----|---------------|---------------|--------------|--------------|-----|
| | D1 N (% ⁶) | D2 | D3 | D4 | Mode (Mo) | D1 | D2 | D3 | D4 | Mo | D1 | D2 | D3 | D4 | Mo |
| Age | | | | | | | | | | | | | | | |
| 18-30 | 58 (35.2) | 71 (43) | 9 (5.5) | 27 (16.4) | 2 | 99 (60) | 50 (30.3) | 7 (4.2) | 9 (5.5) | 1 | 73 (44.2) | 57 (34.5) | 26 (15.8) | 9 (5.5) | 1 |
| 31-45 | 77 (31.4) | 108 (44.1) | 15 (6.1) | 45 (18.4) | 2 | 159 (64.9) | 71 (29) | 11 (4.5) | 4 (1.6) | 1 | 84 (34.4) | 117 (47.8) | 28 (11.4) | 16 (6.5) | 2 |
| 46-60 | 27 (26.7) | 53 (52.5) | 5 (5) | 16 (15.8) | 2 | 58 (57.4) | 32 (31.7) | 3 (3) | 8 (7.9) | 1 | 31 (30.7) | 48 (47.5) | 7 (6.9) | 15 (14.9) | 2 |
| 61-79 | 9 (23.7) | 19 (50) | 2 (5.3) | 8 (21.1) | 2 | 22 (57.9) | 14 (36.8) | 0 (0) | 2 (5.3) | 1 | 9 (23.7) | 20 (52.6) | 3 (7.9) | 6 (15.8) | 2 |
| Gender | | | | | | | | | | | | | | | |
| Female | 144 (31.7) | 201 (44.3) | 25 (5.5) | 84 (18.5) | 2 | 276 (60.8) | 141 (31.1) | 17 (3.7) | 20 (4.4) | 2 | 158 (34.8) | 203 (44.7) | 57 (12.6) | 36 (7.9) | 2 |
| Male | 27 (28.4) | 50 (52.6) | 6 (6.3) | 12 (12.6) | 2 | 62 (65.3) | 26 (27.4) | 4 (4.2) | 3 (3.2) | 2 | 39 (41.1) | 39 (41.1) | 7 (7.4) | 10 (10.5) | 1/2 |
| Childhood Country | | | | | | | | | | | | | | | |
| UK | 141 (30.5) | 222 (48.1) | 24 (5.2) | 75 (16.2) | 2 | 283 (61.3) | 143 (31) | 16 (3.5) | 20 (4.3) | 1 | 166 (35.9) | 202 (43.7) | 51 (11) | 43 (9.3) | 2 |
| Other | 30 (34.5) | 29 (33.3) | 7 (8) | 21 (24.1) | 1 | 55 (63.2) | 24 (27.6) | 5 (5.7) | 3 (3.4) | 1 | 31 (34.6) | 40 (46) | 13 (14.9) | 3 (3.4) | 2 |
| Ethnicity | | | | | | | | | | | | | | | |
| White | 118 (29.9) | 183 (46.4) | 22 (5.6) | 71 (18) | 2 | 244 (61.9) | 125 (31.7) | 10 (2.5) | 15 (3.8) | 1 | 147 (37.3) | 162 (41.1) | 45 (11.4) | 40 (10.2) | 2 |
| Black, Asian and other minority ethnics | 23 (30.3) | 32 (42.1) | 7 (9.2) | 14 (18.4) | 2 | 43 (56.6) | 22 (28.9) | 7 (9.2) | 4 (5.1) | 1 | 17 (22.4) | 43 (56.6) | 13 (17.1) | 3 (3.9) | 2 |
| Missing/PNTS | 30 (38) | 36 (45.6) | 2 (2.5) | 11 (13.9) | 2 | 51 (64.6) | 20 (25.3) | 4 (5.1) | 4 (5.4) | 1 | 33 (41.8) | 37 (46.8) | 6 (7.6) | 3 (3.8) | 2 |

⁶ Percentages given are within variable category.

| Variables | V1 | | | | | V2 | | | | | V3 | | | | |
|---------------------------|------------------------------|---------------|-------------|--------------|--------------|----------------|---------------|-------------|-------------|----|---------------|---------------|--------------|-------------|----|
| | D1 N (% ⁷) | D2 | D3 | D4 | Mode (Mo) | D1 | D2 | D3 | D4 | Mo | D1 | D2 | D3 | D4 | Mo |
| Sexuality | | | | | | | | | | | | | | | |
| Straight | 108 (28.3) | 180 (47.2) | 21 (5.5) | 72 (18.9) | 2 | 229 (60.1) | 124 (32.5) | 14 (3.7) | 14 (3.7) | 1 | 127 (33.3) | 172 (45.1) | 50 (13.1) | 32 (8.4) | 2 |
| Gay/ bisexual/ queer | 32 (43.8) | 28 (38.4) | 5 (6.8) | 8 (11) | 1 | 49 (67.1) | 20 (27.4) | 2 (2.7) | 2 (2.7) | 1 | 34 (46.4) | 28 (38.4) | 6 (8.2) | 5 (6.8) | 1 |
| Asexual/questioning | 31 (32.6) | 43 (45.3) | 5 (5.3) | 16 (16.8) | 2 | 60 (63.2) | 23 (24.2) | 5 (5.3) | 7 (7.4) | 1 | 36 (37.9) | 42 (44.2) | 8 (8.4) | 9 (9.5) | 2 |
| Childhood religion | | | | | | | | | | | | | | | |
| Religious | 104 (29.3) | 162 (54.6) | 23 (6.5) | 66 (18.6) | 2 | 213 (60) | 111 (31.3) | 16 (4.5) | 15 (4.2) | 1 | 115 (32.4) | 166 (46.8) | 47 (13.2) | 27 (7.6) | 2 |
| Not religious/missing | 67 (34.5) | 89 (45.9) | 8 (4.1) | 30 (15.5) | 2 | 125 (64.4) | 56 (28.9) | 5 (2.6) | 8 (4.1) | 1 | 82 (42.3) | 76 (39.2) | 17 (8.8) | 19 (9.8) | 1 |
| Current religion | | | | | | | | | | | | | | | |
| Religious | 38 (24.7) | 67 (43.5) | 11 (7.1) | 38 (24.7) | 2 | 83 (53.9) | 56 (36.4) | 7 (4.5) | 8 (5.2) | 1 | 40 (26) | 78 (50.6) | 21 (13.6) | 15 (9.7) | 2 |
| Not religious/missing | 133 (33.7) | 184 (46.6) | 20 (5.1) | 58 (14.7) | 2 | 255 (64.6) | 111 (28.1) | 14 (3.5) | 15 (3.8) | 1 | 157 (39.7) | 164 (41.5) | 43 (10.9) | 31 (7.8) | 2 |
| Immigration status | | | | | | | | | | | | | | | |
| UK Citizen | 148 (30.8) | 227 (47.3) | 25 (5.2) | 80 (16.7) | 2 | 295 (61..5) | 149 (31.0) | 17 (3.5) | 19 (4) | 1 | 173 (36) | 212 (44.2) | 54 (11.3) | 41 (8.5) | 2 |
| Other | 23 (33.3) | 24 (34.8) | 6 (8.7) | 6 (8.7) | 2 | 43 (62.3) | 18 (26.1) | 4 (5.8) | 4 (5.8) | 1 | 24 (34.8) | 30 (43.5) | 10 (14.5) | 5 (7.2) | 2 |
| Disability | | | | | | | | | | | | | | | |
| Yes | 22 (44) | 17 (34) | 2 (4) | 9 (18) | 1 | 34 (68) | 13 (26) | 1 (2) | 2 (4) | 1 | 25 (50) | 18 (36) | 5 (10) | 2 (4) | 1 |
| No | 149 (29.9) | 234 (46.9) | 29 (5.8) | 87 (17.4) | 2 | 304 (60.9) | 154 (30.9) | 20 (4) | 21 (4.2) | 1 | 172 (34.5) | 224 (44.9) | 59 (11.8) | 44 (8.8) | 2 |

⁷ Percentages given are within variable category.

| Variables | V1 | | | | | V2 | | | | | V3 | | | | |
|---|------------------------------|--------|--------|--------|--------------|--------|--------|-------|--------|----|--------|--------|--------|--------|----|
| | D1 N (% ⁸) | D2 | D3 | D4 | Mode (Mo) | D1 | D2 | D3 | D4 | Mo | D1 | D2 | D3 | D4 | Mo |
| Education Level | | | | | | | | | | | | | | | |
| Up until | 5 | 21 | 2 | 10 | 2 | 17 | 16 | 1 | 4 | 1 | 8 | 16 | 5 | 9 | 2 |
| Completed high school | (13.2) | (55.3) | (5.3) | (26.3) | | (44.7) | (42.1) | (2.6) | (10.5) | | (21.1) | (42.1) | (13.2) | (23.7) | |
| Currently or completed col- lege/university | 74 | 78 | 12 | 38 | 2 | 121 | 63 | 10 | 8 | 1 | 64 | 91 | 31 | 16 | 2 |
| | (36.6) | (38.6) | (5.9) | (18.8) | | (59.9) | (31.2) | (5) | (4) | | (31.7) | (45) | (15.3) | (7.9) | |
| Currently or completed postgraduate/professional school | 92 | 152 | 17 | 48 | 2 | 200 | 88 | 10 | 11 | 1 | 125 | 135 | 28 | 21 | 2 |
| | (29.8) | (49.2) | (5.5) | (15.5) | | (64.7) | (28.5) | (3.2) | (3.6) | | (40.5) | (43.7) | (9.1) | (6.8) | |
| Job sector | | | | | | | | | | | | | | | |
| Unemployed/stay at home/students/ retired | 16 | 35 | 3 | 17 | 2 | 35 | 30 | 0 | 6 | 1 | 22 | 32 | 8 | 9 | 2 |
| | (22.5) | (49.3) | (4.2) | (23.9) | | (49.3) | (42.3) | (0) | (8.5) | | (31) | (45.1) | (11.3) | (12.7) | |
| MH and social care/ Physi- cal health roles | 59 | 82 | 4 | 19 | 2 | 120 | 37 | 5 | 2 | 1 | 75 | 67 | 15 | 7 | 1 |
| | (36) | (50) | (2.4) | (11.6) | | (73.2) | (22.6) | (3) | (1.2) | | (45.7) | (40.9) | (9.1) | (4.3) | |
| General (non-health re- lated jobs) | 87 | 125 | 21 | 56 | 2 | 166 | 94 | 15 | 14 | 1 | 93 | 128 | 41 | 27 | 2 |
| | (30.1) | (43.3) | (7.3) | (19.4) | | (57.4) | (32.5) | (5.2) | (4.8) | | (32.2) | (44.3) | (14.2) | (9.3) | |
| Student | 9 | 9 | 3 | 4 | 2 | 17 | 6 | 1 | 1 | 1 | 7 | 15 | 0 | 3 | 2 |
| | (36) | (36) | (12) | (16) | | (68) | (24) | (4) | (4) | | (28) | (60) | (0) | (12) | |
| Yearly income | | | | | | | | | | | | | | | |
| £0-20 000 | 20 | 16 | 1 | 16 | 1 | 34 | 16 | 0 | 3 | 1 | 25 | 15 | 6 | 7 | 1 |
| | (37.7) | (30.2) | (1.9) | (30.2) | | (64.2) | (30.2) | (0) | (5.3) | | (47.2) | (28.3) | (11.3) | (13.2) | |
| £20 001-40 000 | 45 | 72 | 5 | 19 | 2 | 81 | 46 | 7 | 7 | 1 | 49 | 69 | 16 | 7 | 2 |
| | (31.9) | (51.1) | (3.5) | (13.5) | | (57.4) | (32.6) | (5) | (5) | | (34.8) | (48.9) | (11.3) | (5) | |
| £40 001-60 000 | 36 | 55 | 3 | 21 | 2 | 70 | 37 | 5 | 3 | 1 | 39 | 56 | 12 | 8 | 2 |
| | (31.3) | (47.8) | (2.6) | (18.3) | | (60.9) | (32.2) | (4) | (2.6) | | (33.9) | (48.7) | (10.4) | (7) | |
| £60 001-80 000 | 17 | 35 | 4 | 12 | 2 | 46 | 16 | 4 | 2 | 1 | 30 | 25 | 8 | 5 | 1 |
| | (25) | (51.5) | (5.9) | (17.6) | | (67.6) | (23.5) | (5.9) | (2.9) | | (44.1) | (36.8) | (11.8) | (7.4) | |
| £80 001-100 000 | 12 | 25 | 5 | 6 | 2 | 30 | 17 | 1 | 0 | 1 | 15 | 22 | 7 | 4 | 2 |
| | (25) | (52.1) | (10.4) | (12.5) | | (62.5) | (35.4) | (2.1) | (0) | | (31.1) | (45.8) | (14.6) | (8.3) | |
| £100 001+ | 13 | 21 | 5 | 6 | 2 | 27 | 13 | 3 | 2 | 1 | 18 | 16 | 7 | 4 | 1 |
| | (28.9) | (46.7) | (11.1) | (13.3) | | (60) | (28.9) | (6.7) | (4.4) | | (40) | (35.6) | (15.6) | (8.9) | |
| Unsure/Prefer not to say/missing | 28 | 27 | 8 | 16 | 1 | 50 | 22 | 1 | 6 | 1 | 21 | 39 | 8 | 11 | 2 |
| | (35.4) | (34.2) | (10.1) | (20.3) | | (63.3) | (27.8) | (1.3) | (7.6) | | (26.6) | (49.4) | (10.1) | (13.9) | |

⁸ Percentages given are within variable category.

| Variables | V1 | | | | | V2 | | | | | V3 | | | | |
|---|-------------------|--------|-------|--------|------|-------------------|--------|-------|-------|----|-------------------|--------|--------|--------|----|
| | D1 | D2 | D3 | D4 | Mode | D1 | D2 | D3 | D4 | Mo | D1 | D2 | D3 | D4 | Mo |
| | N | | | | | N | | | | | N | | | | |
| | (% ⁹) | | | | | (% ⁹) | | | | | (% ⁹) | | | | |
| Comparison with others | | | | | | | | | | | | | | | |
| 1 - the least resources | 2 | 5 | 1 | 5 | 2/4 | 8 | 4 | 1 | 0 | 1 | 2 | 8 | 1 | 2 | 2 |
| | (15.4) | (38.5) | (7.7) | (38.5) | | (61.5) | (30.8) | (7.7) | (0) | | (15.4) | (61.5) | (7.7) | (15.4) | |
| 2 | 17 | 21 | 2 | 9 | 2 | 28 | 17 | 1 | 3 | 1 | 14 | 21 | 8 | 6 | 2 |
| | (34.7) | (42.9) | (4.1) | (18.4) | | (57.1) | (34.7) | (2) | (6.1) | | (28.6) | (42.9) | (16.3) | (12.2) | |
| 3 | 25 | 33 | 6 | 17 | 2 | 45 | 25 | 4 | 7 | 1 | 29 | 35 | 7 | 10 | 2 |
| | (30.9) | (40.7) | (7.4) | (21) | | (55.6) | (30.9) | (4.9) | (8.6) | | (35.8) | (43.2) | (8.6) | (12.3) | |
| 4 | 73 | 115 | 12 | 43 | 2 | 150 | 73 | 9 | 11 | 1 | 76 | 120 | 31 | 16 | 2 |
| | (30) | (47.3) | (4.9) | (17.7) | | (61.7) | (30) | (3.7) | (4.5) | | (31.3) | 49.4) | (12.8) | (6.6) | |
| 5 – the most resources | 54 | 77 | 10 | 22 | 2 | 107 | 48 | 6 | 2 | 1 | 76 | 58 | 17 | 12 | 1 |
| | (33.1) | (47.2) | (6.1) | (13.5) | | (65.6) | (29.4) | (3.7) | (1.2) | | (46.6) | (35.6) | (10.4) | (7.4) | |
| Evolution of financial situation over 10 years | | | | | | | | | | | | | | | |
| Worsened | 35 | 48 | 4 | 20 | 2 | 68 | 32 | 5 | 2 | 1 | 41 | 47 | 10 | 9 | 2 |
| | (32.7) | (44.9) | (3.7) | (18.7) | | (63.6) | (29.9) | (4.7) | (1.9) | | (38.3) | (43.9) | (9.3) | (8.4) | 1 |
| Stayed the same | 28 | 55 | 6 | 15 | 2 | 56 | 39 | 2 | 7 | 1 | 29 | 53 | 10 | 12 | 2 |
| | (26.9) | (52.9) | (5.8) | (14.4) | | (53.8) | (37.5) | (1.9) | (6.7) | | (27.9) | (51) | (9.6) | (11.5) | |
| Improved | 108 | 148 | 21 | 61 | 2 | 214 | 96 | 14 | 14 | 1 | 127 | 142 | 44 | 25 | |
| | (32) | (43.8) | (6.2) | (18) | | (63.3) | (28.4) | (4.1) | (4.1) | | (37.6) | (42) | (13) | (7.4) | |
| Health status | | | | | | | | | | | | | | | |
| Very good | 124 | 183 | 21 | 68 | 2 | 251 | 114 | 13 | 18 | 1 | 143 | 175 | 44 | 34 | 2 |
| | (31.3) | (46.2) | (5.3) | (17.2) | | (63.4) | (28.8) | (3.3) | (4.5) | | (36.1) | (44.2) | (11.1) | (8.6) | |
| Fair | 37 | 58 | 9 | 24 | 2 | 70 | 46 | 8 | 4 | 1 | 42 | 61 | 14 | 11 | 2 |
| | (28.9) | (45.3) | (7) | (18.8) | | (54.7) | (35.9) | (6.3) | (3.1) | | (32.8) | (47.7) | (10.9) | (8.6) | |
| Very bad | 10 | 10 | 1 | 4 | 1/2 | 17 | 7 | 0 | 1 | 1 | 12 | 6 | 6 | 1 | 1 |
| | (40) | (40) | (4) | (16) | | (68) | (28) | (0) | (4) | | (48) | (24) | (24) | (4) | |
| Long-lasting illness | | | | | | | | | | | | | | | |
| Yes | 78 | 112 | 16 | 45 | 2 | 157 | 75 | 11 | 8 | 1 | 95 | 107 | 30 | 19 | 2 |
| | (31.1) | (44.6) | (6.4) | (17.9) | | (62.5) | (29.9) | (4.4) | (3.2) | | (37.8) | (42.6) | (12) | (7.6) | |
| No | 93 | 139 | 15 | 51 | 2 | 181 | 92 | 10 | 15 | 1 | 102 | 135 | 34 | 27 | 2 |
| | (31.2) | (46.6) | (5) | (17.1) | | (60.7) | (30.9) | (3.4) | (5) | | (34.2) | (45.3) | (11.4) | (9.1) | |

⁹ Percentages given are within variable category.

| Variables | V1 | | | | | V2 | | | | | V3 | | | | |
|---|--------------------|--------|--------|--------|------|--------|--------|-------|-------|----|--------|--------|--------|--------|-------|
| | D1 | D2 | D3 | D4 | Mode | D1 | D2 | D3 | D4 | Mo | D1 | D2 | D3 | D4 | Mo |
| | N | | | | | | | | | | | | | | |
| | (% ¹⁰) | | | | | | | | | | | | | | |
| Needed to have medical examination in last 12 mo | | | | | | | | | | | | | | | |
| Yes | 104 | 151 | 23 | 57 | 2 | 213 | 99 | 13 | 10 | | 124 | 150 | 36 | 25 | 2 |
| | (31) | (45.1) | (6.9) | (17) | | (62.6) | (29.6) | (3.9) | (3) | 1 | (37) | (44.8) | (10.7) | (7.5) | |
| No | 67 | 100 | 8 | 39 | 2 | 125 | 68 | 8 | 13 | | 73 | 92 | 28 | 21 | 2 |
| | (31.3) | (46.7) | (3.7) | (18.2) | | (58.4) | (31.8) | (3.7) | (6.1) | 1 | (34.1) | (43) | (13.1) | (9.8) | |
| Ability to have medical examination when needed (last 12 months) | | | | | | | | | | | | | | | |
| Yes | 72 | 108 | 14 | 39 | 2 | 148 | 70 | 8 | 7 | 1 | 89 | 104 | 26 | 14 | 2 |
| | (30.9) | (46.4) | (6) | (16.7) | | (63.5) | (30) | (3.4) | (3) | | (38.2) | (44.6) | (11.2) | (6) | |
| No | 32 | 43 | 9 | 18 | 2 | 65 | 29 | 5 | 3 | 1 | 35 | 46 | 10 | 11 | 2 |
| | (31.4) | (42.2) | (8.8) | (17.6) | | (63.7) | (28.4) | (4.9) | (2.9) | | (34.3) | (45.1) | (9.8) | (10.8) | |
| Discrimination in the health service – reason¹¹ | | | | | | | | | | | | | | | |
| Skin colour | 5 | 4 | 0 | 2 | 1 | 9 | 0 | 1 | 1 | 1 | 4 | 6 | 0 | 1 | 2 |
| | (45.5) | (36.4) | (0) | (18.2) | | (81.8) | (0) | (9.1) | (9.1) | | (36.4) | 54.5) | (0) | (9.1) | |
| Ethnic/immigration background | 9 | 7 | 0 | 4 | 1 | 12 | 4 | 3 | 1 | 1 | 5 | 12 | 3 | 0 | 2 |
| | (45) | (35) | (0) | (20) | | (60) | (20) | (15) | (5) | | (25) | (60) | (15) | (0) | |
| Religion/religious background | 2 | 1 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1/2/3 |
| | (66.7) | (33.3) | (0) | (0) | | (100) | (0) | (0) | (0) | | (33.3) | (33.3) | (33.3) | (0) | |
| Age (such as being too old or too young) | 25 | 22 | 6 | 7 | 1 | 39 | 17 | 3 | 1 | 1 | 24 | 27 | 4 | 5 | 2 |
| | (41.7) | (36.7) | (10) | (11.7) | | (65) | (28.3) | (5) | (1.7) | | (40) | (45) | (6.7) | (8.3) | |
| Sex/gender | 27 | 32 | 5 | 12 | 1 | 48 | 21 | 4 | 3 | 1 | 38 | 32 | 2 | 4 | 1 |
| | (35.5) | (42.1) | (6.6) | (15.8) | | (63.2) | (27.6) | (5.3) | (3.9) | | (50) | (42.1) | (2.6) | (5.3) | |
| Disability | 3 | 6 | 1 | 2 | 2 | 5 | 6 | 1 | 0 | 2 | 6 | 5 | 0 | 1 | 1 |
| | (35) | (50) | (8.3) | (16.7) | | (41.7) | (50) | 8.3) | (0) | | (50) | (41.7) | (0) | (8.3) | |
| Sexual orientation | 8 | 3 | 2 | 1 | 1 | 10 | 3 | 1 | 0 | 1 | 9 | 4 | 1 | 0 | 1 |
| | (57.1) | (21.4) | (14.3) | (7.1) | | (71.4) | (21.4) | (7.1) | (0) | | (64.3) | (28.6) | (7.1) | (0) | |
| Other | 8 | 15 | 3 | 6 | 2 | 18 | 11 | 3 | 0 | 1 | 9 | 18 | 2 | 3 | 2 |
| | (25) | (46.9) | (9.4) | (18.8) | | (56.3) | (34.4) | (9.4) | (0) | | (28.1) | (56.3) | (6.3) | (9.4) | |

¹⁰ Percentages given are within variable category.

¹¹ Participants could select multiple responses

| Variables | V1 | | | | | V2 | | | | | V3 | | | | |
|--|--------------------|--------|-------|--------|------|--------------------|--------|-------|--------|----|--------------------|--------|--------|--------|-------|
| | D1 | D2 | D3 | D4 | Mode | D1 | D2 | D3 | D4 | Mo | D1 | D2 | D3 | D4 | Mo |
| | N | | | | | N | | | | | N | | | | |
| | (% ¹²) | | | | | (% ¹²) | | | | | (% ¹²) | | | | |
| Considering oneself as a supporter from a political party | | | | | | | | | | | | | | | |
| Yes | 92 | 127 | 20 | 43 | 2 | 190 | 74 | 8 | 10 | 1 | 115 | 115 | 32 | 20 | 1 / 2 |
| | (32.6) | (45) | (7.1) | (15.2) | | (67.4) | (26.2) | (2.8) | (3.5) | | (40.8) | (40.8) | (11.3) | (7.1) | |
| No | 79 | 124 | 11 | 53 | 2 | 148 | 93 | 13 | 13 | 1 | 82 | 127 | 32 | 26 | 2 |
| | (29.6) | (46.4) | (4.1) | (19.9) | | (55.4) | (34.8) | (4.9) | (4.9) | | (30.7) | (47.6) | (12) | (9.7) | |
| If there was an election tomorrow: party supporting | | | | | | | | | | | | | | | |
| Conservative/Brexit Party | 7 | 23 | 2 | 14 | 2 | 13 | 26 | 1 | 6 | 2 | 2 | 26 | 7 | 11 | 2 |
| | (15.2) | (50) | (4.3) | (30.4) | | (28.3) | (56.5) | (2.2) | (13) | | (4.3) | (56.5) | (15.2) | (23.9) | |
| Labour | 106 | 158 | 18 | 47 | 2 | 228 | 78 | 14 | 9 | 1 | 136 | 142 | 34 | 17 | 2 |
| | (32.2) | (48) | (5.5) | (14.3) | | (69.3) | (23.7) | (4.3) | (2.7) | | (41.3) | (43.2) | (10.3) | (5.2) | |
| None | 14 | 15 | 3 | 13 | 2 | 24 | 14 | 3 | 4 | 1 | 12 | 22 | 6 | 5 | 2 |
| | (31.1) | (33.3) | (6.7) | (28.9) | | (53.3) | (31.1) | (6.7) | (8.9) | | (26.7) | (48.9) | (13.3) | (11.1) | |
| Other (LibDem, Playd, SNP, etc...) | 18 | 33 | 6 | 16 | 2 | 41 | 28 | 3 | 1 | 1 | 25 | 29 | 11 | 8 | 2 |
| | (24.7) | (45.2) | (8.2) | (21.9) | | (56.2) | (38.4) | (4.1) | (1.4) | | (34.2) | (39.7) | (15.1) | (11) | |
| Green Party | 26 | 22 | 2 | 5 | 1 | 32 | 21 | 0 | 2 | 1 | 22 | 23 | 6 | 4 | 2 |
| | (47.3) | (40) | (3.6) | (9.1) | | (58.2) | (38.4) | (0) | (3.6) | | (40) | (41.8) | (10.9) | (7.3) | |
| Relationships to Brexit | | | | | | | | | | | | | | | |
| Leavers | 144 | 209 | 25 | 64 | 2 | 288 | 128 | 17 | 9 | 1 | 176 | 192 | 47 | 27 | 2 |
| | (32.6) | (47.3) | (5.7) | (14.5) | | (65.2) | (29) | (3.8) | (2) | | (39.8) | (43.4) | (10.6) | (6.1) | |
| Remainers | 12 | 19 | 1 | 16 | 2 | 21 | 19 | 1 | 7 | 1 | 9 | 18 | 8 | 13 | 2 |
| | (25) | (39.6) | (2.1) | (33.3) | | (43.8) | (39.6) | (2.1) | (14.6) | | (18.8) | (37.5) | (16.7) | (27.1) | |
| Other | 15 | 23 | 5 | 16 | 2 | 29 | 20 | 3 | 7 | 1 | 12 | 32 | 9 | 6 | 2 |
| | (25.4) | (39) | (8.5) | (27.1) | | (49.2) | (33.9) | (5.1) | (11.9) | | (20.3) | (54.2) | (15.3) | (10.2) | |

¹² Percentages given are within variable category.

| Variables | V1 | | | | V2 | | | | V3 | | | |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | D1 | D2 | D3 | D4 | D1 | D2 | D3 | D4 | D1 | D2 | D3 | D4 |
| MFQCare | | | | | | | | | | | | |
| N= | 171 | 251 | 31 | 96 | 338 | 167 | 21 | 23 | 197 | 242 | 64 | 46 |
| Mean= | 21.80 | 21.03 | 21.55 | 21.45 | 21.82 | 20.53 | 21.67 | 20.61 | 21.81 | 21.23 | 21.64 | 19.87 |
| SD= | 4.56 | 4.02 | 3.43 | 3.96 | 4.18 | 4.08 | 3.40 | 4.32 | 4.28 | 4.02 | 3.59 | 4.81 |
| MFQFairness | | | | | | | | | | | | |
| N= | 171 | 251 | 31 | 96 | 338 | 167 | 21 | 23 | 197 | 242 | 64 | 46 |
| Mean= | 22.35 | 21.06 | 21.39 | 20.89 | 22.14 | 20.50 | 22.14 | 18.74 | 22.65 | 21.13 | 21.14 | 19.07 |
| SD= | 3.83 | 3.96 | 4.14 | 4.38 | 3.95 | 3.94 | 3.73 | 4.20 | 3.79 | 3.79 | 4.10 | 4.90 |
| MFQLoyalty | | | | | | | | | | | | |
| N= | 171 | 251 | 31 | 96 | 338 | 167 | 21 | 23 | 197 | 242 | 64 | 46 |
| Mean= | 8.76 | 9.73 | 9.68 | 11 | 8.87 | 10.78 | 10.76 | 11.87 | 7.96 | 10.18 | 11.56 | 11.43 |
| SD= | 5.05 | 4.91 | 4.64 | 4.60 | 4.83 | 4.68 | 5.59 | 5.42 | 4.17 | 4.92 | 5.07 | 5.67 |
| MFQAuthority | | | | | | | | | | | | |
| N= | 171 | 251 | 31 | 96 | 338 | 167 | 21 | 23 | 197 | 242 | 64 | 46 |
| Mean= | 9.95 | 11.82 | 10.74 | 13.97 | 10.43 | 13.42 | 13.24 | 13.09 | 9.31 | 12.35 | 13.70 | 14.02 |
| SD= | 5.04 | 4.97 | 4.69 | 4.86 | 4.96 | 4.72 | 5.33 | 5.78 | 4.52 | 4.77 | 4.65 | 6.41 |
| MFQSanctity | | | | | | | | | | | | |
| N= | 171 | 251 | 31 | 96 | 338 | 167 | 21 | 23 | 197 | 242 | 64 | 46 |
| Mean= | 7.77 | 8.84 | 7.90 | 11.97 | 7.70 | 10.89 | 10.19 | 13.39 | 6.36 | 10.15 | 10.50 | 12.20 |
| SD= | 5.84 | 5.77 | 6.71 | 5.89 | 5.54 | 5.97 | 7.40 | 6.40 | 4.84 | 5.85 | 6.48 | 6.84 |
| IHLC | | | | | | | | | | | | |
| N= | 171 | 251 | 31 | 96 | 338 | 167 | 21 | 23 | 197 | 242 | 64 | 46 |
| Mean= | 22.61 | 23.84 | 23.16 | 24.96 | 22.80 | 24.80 | 24.33 | 26.17 | 22.37 | 24.13 | 24.91 | 24.41 |
| SD= | 4.93 | 4.58 | 3.80 | 4.39 | 4.61 | 4.13 | 4.25 | 26.17 | 5.01 | 4.08 | 3.82 | 4.89 |
| PHLC | | | | | | | | | | | | |
| N= | 171 | 251 | 31 | 96 | 338 | 167 | 21 | 23 | 197 | 242 | 64 | 46 |
| Mean= | 15.49 | 15.31 | 15 | 15.44 | 15.11 | 15.72 | 16.05 | 15.96 | 15.16 | 15.68 | 15.50 | 14.41 |
| SD= | 4.51 | 4.32 | 3.97 | 4.59 | 4.35 | 4.52 | 4.32 | 5.19 | 4.44 | 4.444 | 4.43 | 4.90 |
| CHLC | | | | | | | | | | | | |
| N= | 171 | 251 | 31 | 96 | 338 | 167 | 21 | 23 | 197 | 242 | 64 | 46 |
| Mean= | 18.04 | 18.33 | 20.39 | 18.01 | 18.25 | 18.57 | 18 | 17.17 | 18.08 | 18.31 | 18.30 | 19.15 |
| SD= | 4.77 | 4.58 | 5.30 | 4.63 | 4.71 | 4.63 | 5.54 | 4.55 | 4.77 | 4.59 | 04.36 | 5.51 |
| BSALR | | | | | | | | | | | | |
| N= | 171 | 251 | 31 | 96 | 338 | 167 | 21 | 23 | 197 | 242 | 64 | 46 |
| Mean= | 1.74 | 1.99 | 1.76 | 2.31 | 1.81 | 2.22 | 1.87 | 2.27 | 1.69 | 2.05 | 2.15 | 2.34 |
| SD= | 0.58 | 0.72 | 0.54 | 0.87 | 0.63 | 0.82 | 0.52 | 0.89 | 0.55 | 0.70 | 0.77 | 1.04 |
| BSALA | | | | | | | | | | | | |
| N= | 171 | 251 | 31 | 96 | 338 | 167 | 21 | 23 | 197 | 242 | 64 | 46 |
| Mean= | 2.16 | 2.53 | 2.63 | 3.03 | 2.26 | 2.89 | 2.68 | 3.20 | 2.07 | 2.63 | 2.88 | 3.22 |
| SD= | 0.73 | 0.82 | 1.05 | 0.82 | 0.78 | 0.81 | 0.86 | 0.93 | 0.69 | 0.78 | 0.86 | 0.96 |

| Variables | V4 | | | | V5 | | | | V6 | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|--|
| | D1 | D2 | D3 | D4 | D1 | D2 | D3 | D4 | D1 | D2 | D3 | D4 | |
| BSAWS | | | | | | | | | | | | | |
| N= | 171 | 251 | 31 | 96 | 338 | 167 | 21 | 23 | 197 | 242 | 64 | 46 | |
| Mean= | 1.65 | 1.95 | 2.16 | 2.68 | 1.72 | 2.41 | 2.26 | 2.72 | 1.55 | 2.11 | 2.40 | 2.75 | |
| SD= | 0.61 | 0.77 | 0.93 | 0.90 | 0.70 | 0.83 | 0.87 | 0.89 | 0.54 | 0.82 | 0.79 | 0.86 | |

| Variables | V4 | | | | | V5 | | | | | V6 | | | | |
|---|--------|--------|--------|--------|----|--------|--------|-------|--------|----|--------|--------|-------|--------|-----|
| | D1 | D2 | D3 | D4 | Mo | D1 | D2 | D3 | D4 | Mo | D1 | D2 | D3 | D4 | Mo |
| | N | N | N | N | | N | N | N | N | | N | N | N | N | |
| | (%) | (%) | (%) | (%) | | (%) | (%) | (%) | (%) | | (%) | (%) | (%) | (%) | |
| Age | | | | | | | | | | | | | | | |
| 18-30 | 72 | 43 | 11 | 39 | 1 | 120 | 26 | 3 | 16 | 1 | 88 | 44 | 6 | 27 | 1 |
| | (43.6) | (26.1) | (6.7) | (23.6) | | (72.7) | (15.8) | (1.8) | (9.7) | | (53.3) | (26.7) | (3.6) | (16.4) | |
| 31-45 | 72 | 95 | 11 | 67 | 2 | 162 | 68 | 4 | 11 | 1 | 128 | 91 | 4 | 22 | 1 |
| | (29.4) | (38.8) | (4.5) | (27.3) | | (66.1) | (27.8) | (1.6) | (4.5) | | (52.2) | (37.1) | (1.6) | (9) | |
| 46-60 | 17 | 41 | 5 | 38 | 2 | 69 | 19 | 3 | 10 | 1 | 62 | 20 | 2 | 17 | 1 |
| | (16.8) | (40.6) | (5.0) | (37.6) | | (68.3) | (18.8) | (3) | (9.9) | | (61.4) | (19.8) | (2.0) | (16.8) | |
| 61-79 | 12 | 17 | 0 | 9 | 2 | 18 | 19 | 0 | 1 | 2 | 15 | 15 | 3 | 5 | 1/2 |
| | (31.6) | (44.7) | (0) | (23.7) | | (47.4) | (50) | (0) | (2.6) | | (39.5) | (39.5) | (7.9) | (13.2) | |
| Gender | | | | | | | | | | | | | | | |
| Female | 148 | 155 | 24 | 127 | 1 | 302 | 109 | 8 | 35 | 1 | 241 | 143 | 11 | 59 | 1 |
| | (32.6) | (34.1) | (5.3) | (28) | | (66.5) | (24) | (1.8) | (7.7) | | (53.1) | (31.5) | (2.4) | (13) | |
| Male | 25 | 41 | 3 | 26 | 2 | 67 | 23 | 2 | 3 | 1 | 52 | 27 | 4 | 12 | 1 |
| | (26.3) | (43.2) | (3.2) | (27.4) | | (70.5) | (24.2) | (2.1) | (3.2) | | (54.7) | (28.4) | (4.2) | (12.6) | |
| Childhood Country | | | | | | | | | | | | | | | |
| UK | 150 | 165 | 17 | 130 | 2 | 312 | 109 | 7 | 34 | 1 | 245 | 146 | 14 | 57 | 1 |
| | (32.5) | (35.7) | (3.7) | (28.1) | | (67.5) | (23.6) | (1.5) | (7.4) | | (53) | (31.6) | (3) | (12.3) | 1 |
| Other | 23 | 31 | 10 | 23 | 2 | 57 | 23 | 3 | 4 | 1 | 48 | 24 | 1 | 14 | |
| | (26.4) | (35.6) | (11.5) | (26.4) | | (65.5) | (26.4) | (3.4) | (4.6) | | (55.2) | (27.6) | (1.1) | (16.1) | |
| Ethnicity | | | | | | | | | | | | | | | |
| White | 120 | 143 | 13 | 118 | 2 | 256 | 104 | 8 | 26 | 1 | 209 | 129 | 9 | 47 | 1 |
| | (30.5) | (36.3) | (3.3) | (29.9) | | (65) | (26.4) | (2) | (6.6) | 1 | (53) | (32.7) | (2.3) | (11.9) | |
| Black, Asian and other minority ethnics | 23 | 23 | 11 | 19 | 2 | 51 | 15 | 2 | 8 | 1 | 44 | 17 | 4 | 11 | 1 |
| | (30.3) | (30.3) | (14.5) | (25) | | (67.1) | (19.7) | (2.6) | (10.5) | | (57.9) | (22.4) | (5.3) | (14.5) | |
| Missing/PNTS | 30 | 30 | 3 | 16 | 1 | 62 | 13 | 0 | 4 | | 40 | 24 | 2 | 13 | 1 |
| | (38) | (38) | (3.8) | (20.3) | | (78.5) | (16.5) | (0) | (5.1) | | (50.6) | (30.4) | (2.5) | (16.5) | |

| Variables | V4 | | | | | V5 | | | | | V6 | | | | |
|---|---------------|---------------|-------------|---------------|----|---------------|---------------|------------|-------------|----|---------------|---------------|-------------|--------------|----|
| | D1 | D2 | D3 | D4 | Mo | D1 | D2 | D3 | D4 | Mo | D1 | D2 | D3 | D4 | Mo |
| | N (%) | N (%) | N (%) | N (%) | | N (%) | N (%) | N (%) | N (%) | | N (%) | N (%) | N (%) | N (%) | |
| Sexuality | | | | | | | | | | | | | | | |
| Straight | 105 (27.6) | 138 (36.2) | 19 (5) | 119 (31.2) | 4 | 245 (64.3) | 97 (25.5) | 7 (1.8) | 32 (8.4) | 1 | 204 (53.5) | 120 (31.5) | 10 (2.6) | 47 (12.3) | 1 |
| Gay/ bisexual/ queer | 35 (47.9) | 22 (30.1) | 3 (4.1) | 13 (17.8) | 1 | 53 (72.6) | 18 (24.7) | 1 (1.4) | 1 (1.4) | 1 | 41 (56.2) | 22 (30.1) | 2 (2.7) | 8 (11) | 1 |
| Asexual/questioning | 33 (34.7) | 36 (37.9) | 5 (5.3) | 21 (22.1) | 2 | 71 (74.7) | 17 (17.9) | 2 (2.1) | 5 (5.2) | 1 | 48 (50.5) | 28 (29.5) | 3 (3.2) | 16 (26.8) | |
| Childhood religion | | | | | | | | | | | | | | | |
| Religious | 101 (28.5) | 129 (36.3) | 17 (4.8) | 108 (30.4) | 4 | 224 (63.1) | 96 (27) | 8 (2.3) | 27 (7.6) | 1 | 182 (51.3) | 120 (33.8) | 8 (2.3) | 45 (12.7) | 1 |
| Not religious/missing | 72 (37.1) | 67 (34.5) | 10 (5.2) | 45 (23.2) | 1 | 145 (74.7) | 36 (18.6) | 2 (1) | 11 (5.7) | 1 | 111 (57.2) | 50 (25.8) | 7 (3.6) | 26 (13.4) | |
| Current religion | | | | | | | | | | | | | | | |
| Religious | 36 (23.4) | 53 (34.4) | 7 (4.5) | 58 (37.7) | 4 | 99 (64.3) | 35 (22.7) | 3 (1.9) | 17 (11) | 1 | 77 (50) | 50 (32.5) | 6 (3.9) | 21 (13.6) | 1 |
| Not religious/missing | 137 (34.7) | 143 (36.2) | 20 (5.1) | 95 (24.1) | 2 | 207 (68.4) | 97 (24.6) | 7 (1.8) | 21 (5.3) | | 216 (54.7) | 120 (30.4) | 9 (2.3) | 50 (12.7) | |
| Immigration status | | | | | | | | | | | | | | | |
| UK Citizen | 155 (32.3) | 173 (36) | 19 (4) | 133 (27.7) | 2 | 323 (67.3) | 116 (24.2) | 8 (1.7) | 33 (6.9) | 1 | 258 (53.8) | 150 (31.3) | 13 (2.7) | 59 (12.3) | 1 |
| Other | 18 (26.1) | 23 (33) | 8 (11.6) | 20 (29) | 2 | 46 (66.7) | 16 (23.2) | 2 (2.9) | 5 (7.2) | 1 | 35 (50.7) | 20 (29) | 2 (2.9) | 12 (17.4) | 1 |
| Disability | | | | | | | | | | | | | | | |
| Yes | 25 (50) | 15 (30) | 2 (4) | 8 (16) | 1 | 41 (82) | 8 (16) | 0 (0) | 1 (2) | 1 | 33 (66) | 9 (18) | 0 (0) | 8 (16) | 1 |
| No | 148 (29.7) | 181 (36.3) | 25 (5) | 145 (29.1) | 1 | 328 (65.7) | 124 (24.8) | 10 (2) | 37 (7.4) | 1 | 260 (52.1) | 161 (32.3) | 15 (3) | 63 (12.6) | 1 |
| Education Level | | | | | | | | | | | | | | | |
| Up until | 11 (28.9) | 11 (28.9) | 3 (7.9) | 13 (34.2) | 4 | 22 (57.9) | 12 (31.6) | 1 (2.6) | 3 (7.9) | 1 | 19 (50) | 10 (26.3) | 2 (5.3) | 7 (18.4) | 1 |
| Completed high school | 55 (27.2) | 75 (37.1) | 9 (4.5) | 63 (31.2) | 2 | 147 (72.8) | 41 (20.3) | 2 (1) | 12 (5.9) | 1 | 105 (52) | 58 (28.7) | 5 (2.5) | 34 (16.8) | 1 |
| Currently or completed college/university | 107 (34.6) | 110 (35.6) | 15 (4.9) | 77 (24.9) | 2 | 200 (64.7) | 79 (25.6) | 7 (2.3) | 23 (7.4) | 1 | 169 (54.7) | 102 (33) | 8 (2.6) | 30 (9.7) | 1 |
| Currently or completed postgraduate/professional school | | | | | | | | | | | | | | | |

| Variables | V4 | | | | | V5 | | | | | V6 | | | | |
|---|-----------|------------|----------|-----------|-------|------------|-----------|---------|----------|----|------------|-----------|----------|-----------|----|
| | D1 | D2 | D3 | D4 | Mo | D1 | D2 | D3 | D4 | Mo | D1 | D2 | D3 | D4 | Mo |
| | N (%) | N (%) | N (%) | N (%) | | N (%) | N (%) | N (%) | N (%) | | N (%) | N (%) | N (%) | N (%) | |
| Job sector | | | | | | | | | | | | | | | |
| Unemployed/stay at home/students/ retired | 22 (31) | 22 (31) | 4 (5.6) | 23 (32.4) | 4 | 46 (64.8) | 20 (28.2) | 0 (0) | 5 (7) | 1 | 35 (49.3) | 18 (25.4) | 5 (7) | 13 (18.3) | 1 |
| MH and social care/ Physical health roles | 69 (42.1) | 57 (34.8) | 3 (1.8) | 35 (21.3) | 1 | 107 (65.2) | 43 (26.2) | 0 (0) | 14 (8.5) | 1 | 96 (58.5) | 58 (35.4) | 0 (0) | 10 (6.1) | 1 |
| General (non-health related jobs) | 74 (25.6) | 108 (37.4) | 19 (6.6) | 88 (30.4) | 2 | 200 (69.2) | 61 (21.1) | 9 (3.1) | 19 (6.6) | 1 | 148 (51.2) | 85 (29.4) | 10 (3.5) | 46 (15.9) | 1 |
| Missing/Prefer not to say | 8 (32) | 9 (36) | 1 (4) | 7 (28) | 2 | 16 (64) | 8 (32) | 1 (4) | 0 (0) | 1 | 14 (56.0) | 9 (36) | 0 (0) | 2 (8) | 1 |
| Yearly income | | | | | | | | | | | | | | | |
| £0-20 000 | 17 (32.1) | 17 (32.1) | 2 (3.8) | 17 (32.1) | 1/2/4 | 40 (75.5) | 9 (17) | 0 (0) | 4 (7.5) | 1 | 29 (54.7) | 11 (20.8) | 1 (1.9) | 12 (22.6) | 1 |
| £20 001-40 000 | 41 (29.1) | 50 (35.5) | 6 (4.3) | 44 (31.2) | 2 | 95 (67.4) | 37 (26.2) | 1 (0.7) | 8 (5.7) | 1 | 80 (56.7) | 35 (24.8) | 5 (3.5) | 21 (14.9) | 1 |
| £40 001-60 000 | 39 (33.9) | 40 (34.8) | 5 (4.3) | 31 (27) | 2 | 80 (69.6) | 24 (20.9) | 2 (1.7) | 9 (7.8) | 1 | 56 (48.7) | 41 (35.7) | 4 (3.5) | 14 (12.2) | 1 |
| £60 001-80 000 | 25 (36.8) | 22 (32.4) | 3 (4.4) | 18 (26.5) | 1 | 45 (66.2) | 18 (26.5) | 1 (1.5) | 4 (5.9) | 1 | 35 (51.5) | 25 (36.8) | 1 (1.5) | 7 (10.3) | 1 |
| £80 001-100 000 | 11 (22.9) | 22 (45.8) | 2 (8.9) | 13 (27.1) | 2 | 24 (50) | 19 (39.6) | 1 (2.1) | 4 (8.3) | 1 | 24 (50) | 20 (41.7) | 0 (0) | 4 (8.3) | 1 |
| £100 001+ | 11 (24.4) | 24 (53.3) | 4 (8.9) | 6 (13.3) | 2 | 31 (68.9) | 8 (17.8) | 2 (4.4) | 4 (8.9) | 1 | 28 (62.2) | 12 (26.7) | 2 (4.4) | 3 (6.7) | 1 |
| Unsure/Prefer not to say/missing | 29 (36.7) | 21 (26.6) | 5 (6.3) | 24 (30.4) | 1 | 54 (68.4) | 17 (21.5) | 3 (3.8) | 5 (6.3) | 1 | 41 (51.9) | 26 (32.9) | 2 (2.5) | 10 (12.7) | 1 |
| Comparison with others' situation | | | | | | | | | | | | | | | |
| 1 - the least resources | 4 (30.8) | 5 (38.5) | 0 (0) | 4 (30.8) | 1 | 10 (76.9) | 2 (15.4) | 0 (0) | 1 (7.7) | 1 | 6 (46.2) | 3 (23.1) | 0 (0) | 4 (30.8) | 1 |
| 2 | 14 (28.6) | 17 (34.7) | 2 (4.1) | 16 (32.7) | 2 | 30 (61.2) | 12 (24.5) | 1 (2) | 6 (12.2) | 1 | 26 (53.1) | 13 (26.5) | 1 (2) | 9 (18.4) | 1 |
| 3 | 25 (30.9) | 22 (27.2) | 6 (7.4) | 28 (34.6) | 4 | 57 (70.4) | 18 (22.2) | 1 (1.2) | 5 (6.2) | 1 | 46 (56.8) | 18 (22.2) | 2 (2.5) | 15 (18.5) | 1 |
| 4 | 70 (28.8) | 87 (35.8) | 13 (5.3) | 73 (30) | 2 | 171 (70.4) | 55 (22.6) | 4 (1.6) | 13 (5.3) | 1 | 137 (56.4) | 69 (28.4) | 8 (3.3) | 29 (11.9) | 1 |
| 5 – the most resources | 60 (36.8) | 65 (39.9) | 6 (3.7) | 32 (19.6) | 2 | 101 (62) | 45 (27.6) | 4 (2.5) | 13 (8) | 1 | 78 (47.9) | 67 (41.1) | 4 (2.5) | 14 (8.6) | 1 |

| Variables | V4 | | | | | V5 | | | | | V6 | | | | |
|---|---------------|---------------|-------------|---------------|----|---------------|--------------|------------|-------------|----|---------------|---------------|-------------|--------------|----|
| | D1 | D2 | D3 | D4 | Mo | D1 | D2 | D3 | D4 | Mo | D1 | D2 | D3 | D4 | Mo |
| | N (%) | N (%) | N (%) | N (%) | | N (%) | N (%) | N (%) | N (%) | | N (%) | N (%) | N (%) | N (%) | |
| Evolution of financial situation over 10 years | | | | | | | | | | | | | | | |
| Worsened | 33 (30.8) | 37 (34.6) | 2 (1.9) | 35 (32.7) | 2 | 75 (70.1) | 26 (24.3) | 1 (0.9) | 5 (4.7) | 1 | 64 (59.8) | 26 (24.3) | 3 (2.8) | 14 (13.1) | 1 |
| Stayed the same | 29 (27.9) | 36 (34.6) | 4 (3.8) | 35 (33.7) | 2 | 63 (60.6) | 29 (27.9) | 4 (3.8) | 8 (7.7) | 1 | 48 (46.2) | 37 (35.6) | 5 (4.8) | 14 (13.5) | 1 |
| Improved | 111 (32.8) | 123 (36.4) | 21 (6.2) | 83 (24.6) | 2 | 231 (68.3) | 77 (22.8) | 5 (1.5) | 25 (7.4) | 1 | 181 (53.6) | 107 (31.7) | 7 (2.1) | 43 (12.7) | |
| Health status | | | | | | | | | | | | | | | |
| Very good | 124 (31.3) | 146 (36.9) | 18 (4.5) | 108 (27.3) | 2 | 263 (66.4) | 98 (24.7) | 7 (1.8) | 28 (7.1) | 1 | 211 (53.3) | 130 (32.8) | 11 (2.8) | 44 (11.) | 1 |
| Fair | 40 (31.3) | 42 (32.8) | 9 (7) | 37 (28.9) | 2 | 87 (68) | 31 (24.2) | 3 (2.3) | 7 (5.5) | 1 | 69 (53.9) | 33 (25.8) | 4 (3.1) | 22 (17.2) | 1 |
| Very bad | 9 (36) | 8 (32) | 0 (0) | 8 (32) | 1 | 19 (76) | 3 (2.3) | 0 (0) | 3 (12) | 1 | 13 (52) | 7 (28) | 0 (0) | 5 (20) | 1 |
| Longlasting illness (>6 months) | | | | | | | | | | | | | | | |
| Yes | 80 (31.9) | 91 (36.3) | 11 (4.4) | 69 (27.5) | 2 | 176 (70.1) | 55 (21.9) | 7 (2.8) | 13 (5.2) | 1 | 123 (49) | 81 (32.3) | 6 (2.4) | 41 (16.3) | 1 |
| No | 93 (31.2) | 105 (35.2) | 16 (5.4) | 84 (28.2) | 2 | 193 (64.8) | 77 (25.8) | 3 (1) | 25 (8.4) | 1 | 170 (57) | 89 (29.9) | 9 (3) | 30 (10.1) | 1 |
| Needed to have medical examination in last 12 mo | | | | | | | | | | | | | | | |
| Yes | 109 (32.5) | 114 (34) | 16 (4.8) | 96 (28.7) | 1 | 231 (69) | 76 (22.7) | 7 (2.1) | 21 (6.3) | 1 | 178 (53.1) | 103 (30.7) | 11 (3.3) | 43 (12.8) | 1 |
| No | 64 (29.9) | 82 (38.3) | 11 (5.1) | 57 (26.6) | 2 | 138 (64.5) | 56 (26.2) | 3 (1.4) | 17 (7.9) | 1 | 115 (53.7) | 67 (31.3) | 4 (1.9) | 28 (13.1) | |
| Ability to have medical examination when needed (last 12 months) | | | | | | | | | | | | | | | |
| Yes | 82 (35.2) | 78 (33.5) | 11 (4.7) | 62 (26.6) | 1 | 164 (70.4) | 48 (20.6) | 4 (1.7) | 17 (7.3) | 1 | 123 (52.8) | 75 (32.2) | 9 (3.9) | 26 (11.2) | 1 |
| No | 27 (26.5) | 36 (35.3) | 5 (4.9) | 34 (33.3) | 2 | 67 (65.7) | 28 (27.5) | 3 (2.9) | 4 (3.9) | 1 | 55 (53.9) | 28 (27.5) | 2 (2) | 17 (16.7) | 1 |

| Variables | V4 | | | | | V5 | | | | | V6 | | | | |
|---|--------------|--------------|-------------|--------------|-------|--------------|--------------|------------|------------|-----|--------------|--------------|------------|--------------|-----|
| | D1 | D2 | D3 | D4 | Mo | D1 | D2 | D3 | D4 | Mo | D1 | D2 | D3 | D4 | Mo |
| | N (%) | N (%) | N (%) | N (%) | | N (%) | N (%) | N (%) | N (%) | | N (%) | N (%) | N (%) | N (%) | |
| Reasons for lack of access | | | | | | | | | | | | | | | |
| Waiting list length | 8 (29.6) | 10 (37) | 2 (7.4) | 7 (25.9) | 2 | 20 (74.1) | 6 (22.2) | 1 (3.7) | 0 (0) | 1 | 16 (59.3) | 5 (18.5) | 1 (3.7) | 5 (18.5) | 1 |
| Inability to take time off | 1 (25) | 1 (25) | 0 (0) | 2 (50) | 4 | 1 (25) | 3 (75) | 0 (0) | 0 (0) | 2 | 2 (50) | 1 (25) | 0 (0) | 1 (25) | 1 |
| Fear of medical treatment | 0 (0) | 1 (33.3) | 1 (33.3) | 1 (33.3) | 2/3/4 | 2 (66.7) | 1 (33.3) | 0 (0) | 0 (0) | 1 | 1 (33.3) | 0 (0) | 0 (0) | 2 (66.7) | 4 |
| Not knowing a good specialist or doctor | 1 (50) | 0 (0) | 0 (1) | 1 (33.3) | 1/4 | 1 (50) | 1 (50) | 0 (0) | 0 (0) | 1/2 | 1 (50) | 0 (0) | 0 (0) | 1 (50) | 1/4 |
| Wanted to wait and see if the problem got better | 6 (17.1) | 16 (45.7) | 2 (5.7) | 11 (31.4) | 2 | 21 (60) | 9 (25.7) | 2 (5.7) | 3 (8.6) | 1 | 18 (51.4) | 13 (37.1) | 1 (2.9) | 3 (8.6) | 1 |
| COVID-19/Other | 11 (35.5) | 8 (25.8) | 0 (0) | 12 (38.7) | 4 | 22 (71) | 8 (25.8) | 0 (0) | 1 (3.2) | 1 | 17 (53.9) | 9 (29) | 0 (0) | 5 (16.1) | 1 |
| Discrimination in the health service – reason¹³ | | | | | | | | | | | | | | | |
| Skin colour | 6 (31) | 3 (27.3) | 1 (9.1) | 1 (9.1) | 1 | 10 (90.9) | 1 (9.1) | 0 (0) | 0 (0) | 1 | 6 (54.4) | 2 (18.2) | 0 (0) | 3 (27.3) | 1 |
| Ethnic/immigration background | 5 (25) | 8 (40) | 2 (10) | 5 (25) | 2 | 15 (75) | 3 (15) | 0 (0) | 2 (10) | 1 | 10 (50) | 7 (35) | 1 (5) | 2 (10) | 1 |
| Religion/religious background | 2 (66.7) | 1 (33.3) | 0 (0) | 0 (0) | 1 | 3 (100) | 0 (0) | 0 (0) | 0 (0) | 1 | 2 (66.7) | 0 (0) | 0 (0) | 1 (33.3) | 1 |
| Age (such as being too old or too young) | 22 (36.7) | 22 (36.7) | 3 (5) | 13 (21.7) | 1/2 | 42 (70) | 14 (23.3) | 0 (0) | 4 (6.7) | 1 | 36 (60) | 12 (20) | 2 (3.3) | 10 (16.7) | 1 |
| Sex/gender | 31 (40.8) | 23 (30.3) | 4 (5.3) | 18 (23.7) | 1 | 55 (72.4) | 17 (22.4) | 1 (1.3) | 3 (1.3) | 1 | 40 (52.6) | 20 (26.3) | 0 (0) | 16 (21) | 1 |
| Disability | 2 (16.7) | 5 (41.7) | 1 (8.3) | 4 (33.3) | 2 | 8 (66.7) | 4 (33.3) | 0 (0) | 0 (0) | 1 | 6 (50) | 2 (16.7) | 0 (0) | 4 (33.3) | 4 |
| Sexual orientation | 9 (64.3) | 3 (21.4) | 1 (7.1) | 1 (7.1) | 1 | 12 (85.7) | 1 (7.1) | 0 (0) | 1 (7.1) | 1 | 10 (71.4) | 2 (14.3) | 1 (7.1) | 1 (7.1) | 1 |
| Other | 7 (21.9) | 13 (40.6) | 1 (3.1) | 11 (34.4) | 2 | 19 (59.4) | 10 (31.3) | 1 (3.1) | 2 (6.3) | 1 | 14 (43.8) | 12 (37.5) | 2 (6.3) | 4 (12.5) | 1 |

¹³ Participants could select multiple responses

| Variables | V4 | | | | | V5 | | | | | V6 | | | | |
|--|---------------|---------------|-------------|---------------|-------|---------------|---------------|------------|-------------|-------|---------------|---------------|-------------|--------------|----|
| | D1 | D2 | D3 | D4 | Mo | D1 | D2 | D3 | D4 | Mo | D1 | D2 | D3 | D4 | Mo |
| | N | N | N | N | | N | N | N | N | | N | N | N | N | |
| | (%) | (%) | (%) | (%) | | (%) | (%) | (%) | (%) | | (%) | (%) | (%) | (%) | |
| Considering oneself as a supporter from a political party | | | | | | | | | | | | | | | |
| Yes | 101 (35.8) | 106 (37.6) | 14 (5) | 61 (21.6) | 1 | 184 (65.2) | 72 (25.5) | 6 (2.1) | 20 (7.1) | 1 | 155 (55) | 89 (31.6) | 7 (2.5) | 31 (11) | 1 |
| No | 72 (27) | 90 (33.7) | 13 (4.9) | 92 (34.5) | 4 | 185 (69.3) | 60 (22.5) | 4 (1.5) | 18 (6.7) | 1 | 138 (51.7) | 81 (30.3) | 8 (3) | 40 (15) | 1 |
| If there was an election tomorrow: party supporting | | | | | | | | | | | | | | | |
| Conservative/Brexit Party | 8 (17.4) | 14 (30.4) | 5 (10.9) | 19 (41.3) | 4 | 18 (39.1) | 18 (39.1) | 2 (4.3) | 8 (17.4) | 1/2 | 22 (47.8) | 12 (26.1) | 2 (4.3) | 10 (21.7) | 1 |
| Labour | 110 (33.4) | 131 (39.8) | 14 (4.3) | 74 (22.5) | 2 | 232 (70.5) | 73 (22.2) | 5 (1.5) | 19 (5.8) | 1 | 182 (55.3) | 101 (30.7) | 9 (2.7) | 37 (11.2) | 1 |
| None | 10 (22.2) | 9 (20) | 6 (13.3) | 20 (44.4) | 4 | 29 (64.4) | 8 (17.8) | 1 (2.2) | 7 (15.6) | 1 | 21 (46.7) | 12 (26.7) | 1 (2.2) | 11 (24.4) | 1 |
| Other (libDem, Playd, SNP, etc...) | 19 (26) | 26 (35.6) | 2 (2.7) | 26 (35.6) | 2/4 | 50 (68.5) | 19 (26) | 2 (2.7) | 2 (2.7) | 1 | 39 (53.4) | 27 (37) | 1 (1.4) | 6 (8.2) | 1 |
| Green Party | 26 (47.3) | 16 (29.1) | 0 (0) | 13 (23.6) | 1 | 40 (66.1) | 14 (22) | 0 (4.2) | 1 (8.5) | 1 | 29 (52.7) | 18 (32.7) | 2 (3.6) | 6 (10.9) | 1 |
| Relationships to Brexit | | | | | | | | | | | | | | | |
| Leavers | 146 (33) | 172 (38.9) | 19 (4.3) | 105 (23.8) | 2 | 302 (68.3) | 107 (24.2) | 6 (1.4) | 27 (6.1) | 1 | 235 (53.2) | 144 (32.6) | 10 (2.3) | 53 (12) | 1 |
| Remainers | 13 (27.1) | 8 (16.7) | 4 (8.3) | 23 (47.9) | 4 | 28 (58.3) | 12 (25) | 2 (4.2) | 6 (12.5) | 1 | 27 (56.3) | 12 (25) | 2 (4.2) | 7 (14.6) | 1 |
| Other | 14 (23.7) | 16 (27.1) | 4 (6.8) | 25 (42.4) | 4 | 39 (66.1) | 13 (22) | 2 (4.2) | 5 (8.5) | 1 | 31 (52.5) | 14 (23.7) | 3 (5.1) | 11 (18.6) | 1 |
| Variables | | | | | | | | | | | | | | | |
| | V4 | | | | V5 | | | | V6 | | | | | | |
| | D1 | D2 | D3 | D4 | D1 | D2 | D3 | D4 | D1 | D2 | D3 | D4 | | | |
| MFQCare | | | | | | | | | | | | | | | |
| N= | 173 | 196 | 27 | 153 | 369 | 153 | 10 | 38 | 293 | 170 | 15 | 71 | | | |
| Mean= | 22.03 | 20.61 | 20.63 | 21.73 | 21.75 | 21.73 | 18.90 | 21.39 | 21.56 | 21.22 | 20.27 | 21.17 | | | |
| SD= | 3.82 | 4.13 | 3.81 | 4.46 | 4.23 | 4.46 | 3.75 | 4.07 | 4.27 | 3.94 | 3.69 | 4.32 | | | |
| MFQFairness | | | | | | | | | | | | | | | |
| N= | 173 | 196 | 27 | 153 | 369 | 153 | 10 | 38 | 293 | 170 | 15 | 71 | | | |
| Mean= | 22.56 | 21.08 | 22.14 | 20.74 | 22.05 | 20.74 | 19.80 | 19.92 | 21.84 | 20.91 | 21.93 | 21.45 | | | |
| SD= | 3.71 | 4.14 | 3.97 | 4.29 | 3.87 | 4.29 | 6.05 | 4.42 | 5.22 | 4.24 | 4.01 | 3.95 | | | |

| Variables | V4 | | | | V5 | | | | V6 | | | |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | D1 | D2 | D3 | D4 | D1 | D2 | D3 | D4 | D1 | D2 | D3 | D4 |
| MFQLoyalty | 173 | 196 | 27 | 153 | 369 | 153 | 10 | 38 | 293 | 170 | 15 | 71 |
| N= | 8.64 | 9.15 | 12.67 | 10.90 | 9.31 | 10.90 | 11.10 | 10.32 | 9.43 | 9.35 | 11.87 | 10.80 |
| Mean= | 4.72 | 4.59 | 6.20 | 4.91 | 4.73 | 4.91 | 4.61 | 5.37 | 5.22 | 4.24 | 4.82 | 5.10 |
| SD= | | | | | | | | | | | | |
| MFQAuthority | 173 | 196 | 27 | 153 | 369 | 153 | 10 | 38 | 293 | 170 | 15 | 71 |
| N= | 9.87 | 9.15 | 11.25 | 13.35 | 10.95 | 13.35 | 12.50 | 13.11 | 10.87 | 11.76 | 12.60 | 13.68 |
| Mean= | 4.88 | 4.85 | 4.85 | 4.91 | 5.00 | 4.91 | 5.25 | 5.23 | 5.24 | 4.62 | 5.04 | 5.30 |
| SD= | | | | | | | | | | | | |
| MFQSanctity | 173 | 196 | 27 | 153 | 369 | 153 | 10 | 38 | 293 | 170 | 15 | 71 |
| N= | 7.08 | 11.25 | 8.38 | 11.63 | 8.42 | 11.63 | 9.00 | 11.89 | 8.38 | 8.81 | 10.67 | 11.70 |
| Mean= | 5.35 | 5.72 | 5.72 | 6.03 | 5.79 | 6.03 | 8.18 | 5.81 | 6.10 | 5.53 | 6.99 | 6.02 |
| SD= | | | | | | | | | | | | |
| IHLC | 173 | 196 | 27 | 153 | 369 | 153 | 10 | 38 | 293 | 170 | 15 | 71 |
| N= | 22.55 | 23.76 | 23.72 | 24.28 | 23.18 | 24.28 | 24.10 | 25.26 | 22.96 | 23.88 | 24.40 | 25.51 |
| Mean= | 4.94 | 4.42 | 4.4 | 4.10 | 4.62 | 4.10 | 3.18 | 3.77 | 4.69 | 4.38 | 4.48 | 3.95 |
| SD= | | | | | | | | | | | | |
| PHLC | 173 | 196 | 27 | 153 | 369 | 153 | 10 | 38 | 293 | 170 | 15 | 71 |
| N= | 15.94 | 14.94 | 16.03 | 15.16 | 15.29 | 15.16 | 16.30 | 15.66 | 15.37 | 15.17 | 16.60 | 15.58 |
| Mean= | 4.53 | 4.21 | 4.73 | 4.67 | 4.41 | 4.67 | 5.50 | 4.59 | 4.60 | 4.24 | 5.63 | 4.33 |
| SD= | | | | | | | | | | | | |
| CHLC | 173 | 196 | 27 | 153 | 369 | 153 | 10 | 38 | 293 | 170 | 15 | 71 |
| N= | 18.35 | 18.47 | 18.07 | 18.05 | 18.12 | 18.05 | 21.00 | 18.63 | 18.46 | 18.12 | 18.93 | 17.89 |
| Mean= | 4.79 | 4.68 | 4.13 | 4.77 | 4.57 | 4.77 | 7.91 | 4.14 | 4.75 | 4.51 | 5.92 | 4.76 |
| SD= | | | | | | | | | | | | |
| BSALR | 173 | 196 | 27 | 153 | 369 | 153 | 10 | 38 | 293 | 170 | 15 | 71 |
| N= | 1.76 | 1.92 | 2.21 | 2.17 | 1.86 | 2.17 | 2.46 | 2.28 | 1.90 | 1.99 | 2.12 | 2.07 |
| Mean= | 0.64 | 0.67 | 0.86 | 0.80 | 0.63 | 0.80 | 0.93 | 0.92 | 0.68 | 0.74 | 0.75 | 0.86 |
| SD= | | | | | | | | | | | | |
| BSALA | 173 | 196 | 27 | 153 | 369 | 153 | 10 | 38 | 293 | 170 | 15 | 71 |
| N= | 2.22 | 2.37 | 2.85 | 2.94 | 2.38 | 2.94 | 2.82 | 2.95 | 2.40 | 2.50 | 2.99 | 2.86 |
| Mean= | 0.78 | 0.75 | 0.97 | 0.86 | 0.82 | 0.86 | 1.21 | 0.83 | 0.85 | 0.82 | 0.88 | 0.87 |
| SD= | | | | | | | | | | | | |
| BSAWS | 173 | 196 | 27 | 153 | 369 | 153 | 10 | 38 | 293 | 170 | 15 | 71 |
| N= | 1.67 | 1.82 | 2.58 | 2.48 | 1.87 | 2.48 | 2.80 | 2.44 | 1.88 | 1.99 | 2.30 | 2.44 |
| Mean= | 0.63 | 0.75 | 0.93 | 0.75 | 0.73 | 0.87 | 1.36 | 0.94 | 0.80 | 0.84 | 0.79 | 0.83 |
| SD= | | | | | | | | | | | | |

3.6. RQ 3 - What are participants views on their decision-making process on PHRA?

The content analysis quantitatively explored participants' responses to qualitative survey comments. When participants were asked to choose the statement closest to their view on each vignette, they were also asked if there was something they wished to add for each vignette. Initially, sets of ideas were identified and concepts with similar meaning were then aggregated into categories (Elo & Kyngäs, 2008). The themes were guided by a deductive and inductive framework to address the research question.

Statements that were reworded from the categories included in the options already given (D1- D4) were not included in the analysis, unless statements were opposite to the option chosen as this represented plurality in ethical viewpoints. Statements related to the current UK government, comments about immigration or problematic MH care delivery, and in-depth personal stories were also considered for context but discarded for the content analysis. Statements often included several points, which were counted as separate entities. Table 12 details categories of statements.

Table 12*Content Analysis Categories*

| Categories | V1 | V2 | V 3 | V4 | V5 | V6 | Total |
|--|------------|------------|------------|------------|-----------|-----------|------------|
| 1 - Priority based on maximisation of health gain | 63 | 27 | 23 | 15 | 23 | 29 | 180 |
| 2 - Priority based on comparison with others | 31 | 3 | 9 | 33 | 4 | 14 | 94 |
| 3 – Access to care if conditions are met | 40 | 20 | 15 | 3 | 2 | 0 | 80 |
| 4 – Basic right to care | 19 | 3 | 37 | 15 | 8 | 23 | 105 |
| 5 - Plurality in ethical viewpoints/ viewpoint not represented | 20 | 8 | 9 | 25 | 4 | 10 | 76 |
| 6 - Holistic care needed | 15 | 147 | 1 | 13 | 8 | 3 | 187 |
| 7- Other – specific to vignette | 0 | 3 | 17 | 11 | 17 | 8 | 56 |
| Total | 188 | 211 | 112 | 115 | 66 | 87 | 778 |

The number of comments typically decreased from vignette 1 to 5, suggesting participant fatigue or that they had already made their point in previous vignettes. Vignette six saw an increase in comments, potentially due to the current relevance of COVID-19.

3.6.1. Priority based on maximisation of health gain (N=180)

This category summarised comments that suggested clinical need as the priority, regardless of moral judgement. An assumption was often made that all clinical needs could be met if we prioritised based on urgency.

3.6.2. Priority based on comparison with others (N=94)

Moral judgement as a prioritising process were grouped in this category. Participants stated a desire to know who else was waiting for treatment, and their characteristic, so that a choice based on deservedness could be made.

3.6.3. Access to care if conditions are met (N=80)

These comments included observations that additional requirements were needed in order to allocate (i.e. longer abstinence or ability to evidence willingness to change).

3.6.4. Basic right to care (N=105)

This category included comments about “first-come-first-served-basis” and the fact that these issues were basic healthcare and so should be accessible to all. There was no moral judgement or prioritisation process attached to these.

3.6.5. Plurality in ethical viewpoints/ viewpoint not represented in options (N=76)

Statements about hesitating, personal conflict in moral thinking and plurality in viewpoints were encompassed here. Those that stated that the options given were not satisfactory and needed to be completed by additional points were also included.

3.6.6. Holistic care needed (N=187)

Some comments incorporated a call for holistic care that was addressed more needs than the specific treatment discussed in the vignette.

3.6.7. Other – specific to vignette (N=56)

For each vignette, many comments captured something specific to the topic. These included: the need for the patients’ voice to be included in self-harm treatments (N=3); the possibility to seek care in country of origin if the person discussed in vignette 3 was only in the UK for a short amount of time (N=17), the social cost of HIV, such as spreading of illness and loss (N=11); the call for more resources in mental (N=9) and physical healthcare (N=8) to reduce waiting list

and conflicts; and the need for repeated and comprehensive treatments in MH(N=8).

4. DISCUSSION

4.1. Overview

This chapter summarises the study's findings and connects them to the research questions and relevant literature. Implications for clinical psychology and health services will be considered before a framework (a proposed Intuition and Bias Accountability Framework for Fairer Healthcare Resource Allocation) is proposed. Limitations and strengths of the study will be outlined, followed by a concluding summary.

4.2. Summary of study findings

4.2.1. Summary of the study variables

PHRA was explored using six vignettes which were presented to participants. For each vignette, participants were offered four options representing four dimensions of PHRA:

- D1 - vulnerability-based PHRA;
- D2 - consequence-based PHRA;
- D3 - contribution-based PHRA;
- D4 - responsibility-based PHRA.

Three standardised questionnaires with the following subscales were used:

- MFQCare: a measure of moral judgement based on if someone was hurt;
- MFQFairness: a measure of moral judgement based on fairness;
- MFQLoyalty: a measure of moral judgement based on in-group values;
- MFQAuthority: a measure of moral judgement based on authority;
- MFQSanctity: a measure of moral judgement based on purity;
- MHLC Internal: a measure of internally-based health locus of control;
- CHLC: a measure of health locus of control based on chance;
- PHLC: a measure of health locus of control based on powerful others;

- BSALR: a measure about endorsing Left or Right ideologies;
- BSALA: a measure about endorsing Libertarianism or Authoritarianism;
- BSAWS: a measure about endorsement of the welfare state.

Additional personal factors included demographic characteristics, political beliefs and perceived healthcare access.

4.2.2. RQ1: Are there significant differences in PHRA (as represented by options chosen on vignettes) based on demographic characteristics, political leaning, moral values, Health locus of control, or perceived access to healthcare

For clarity, comprehensiveness and to avoid repetition of individual analyses presented in the results section, data related to the six vignettes is presented pictorially (Figures 1 to 6). Information presented combines results from Chi-Square and KW analyses and their post-hoc tests; they do not imply causation, but they show significant differences in PHRA for subgroups of people. In addition to the subscales and vignette dimension abbreviations, symbols used in these diagrams include: \neq (significantly different from), z scores (adjusted standardised residual calculations from Chi-Square analysis); X^2 for Chi-Square and mr (mean ranks) from the KW and Dunn's Post Hoc test. The figures below show how variable responses to vignette were associated to topic-related aspect of PHRA.

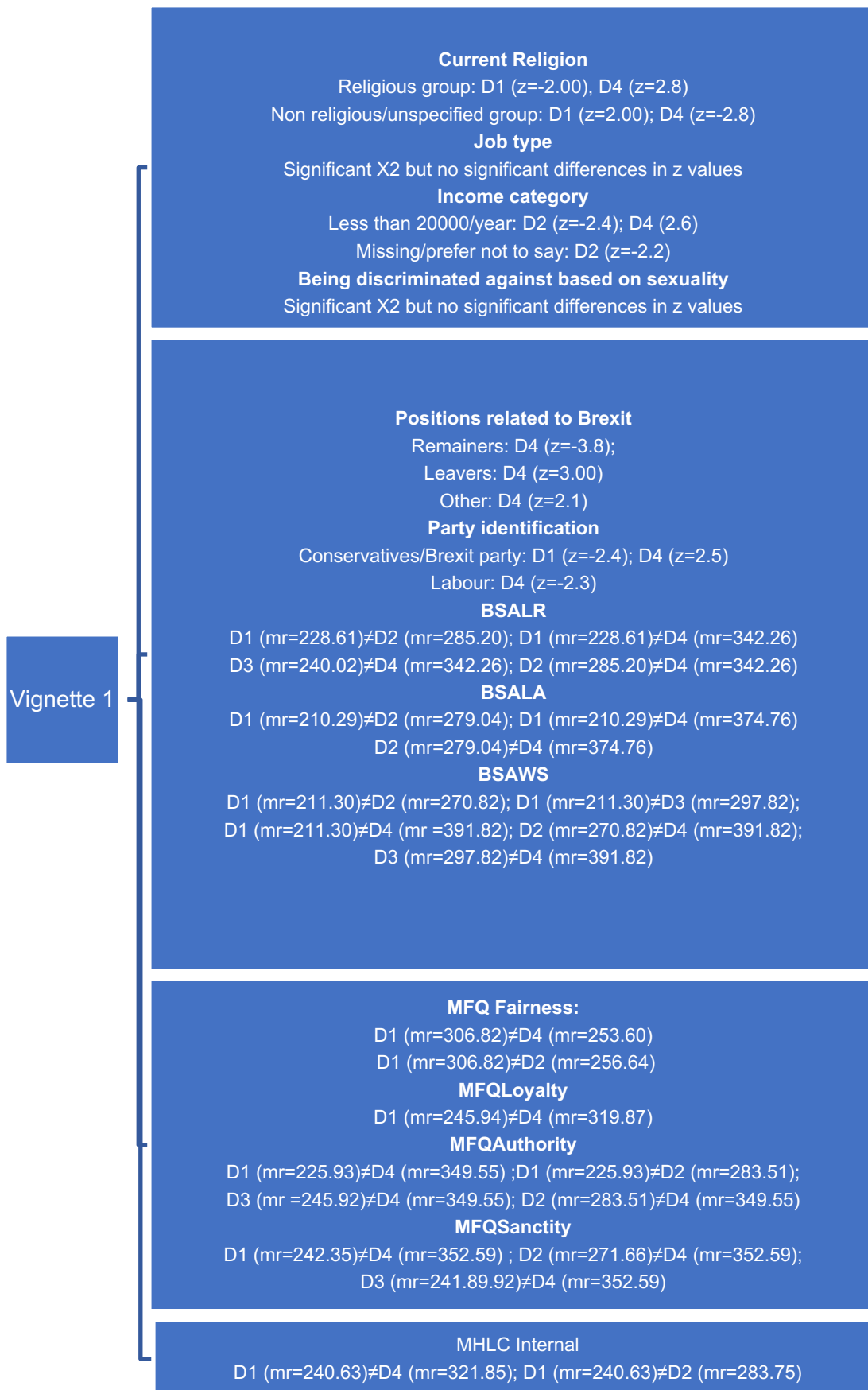


Figure 1. V1: Liver transplant for someone who has a history of abusing alcohol

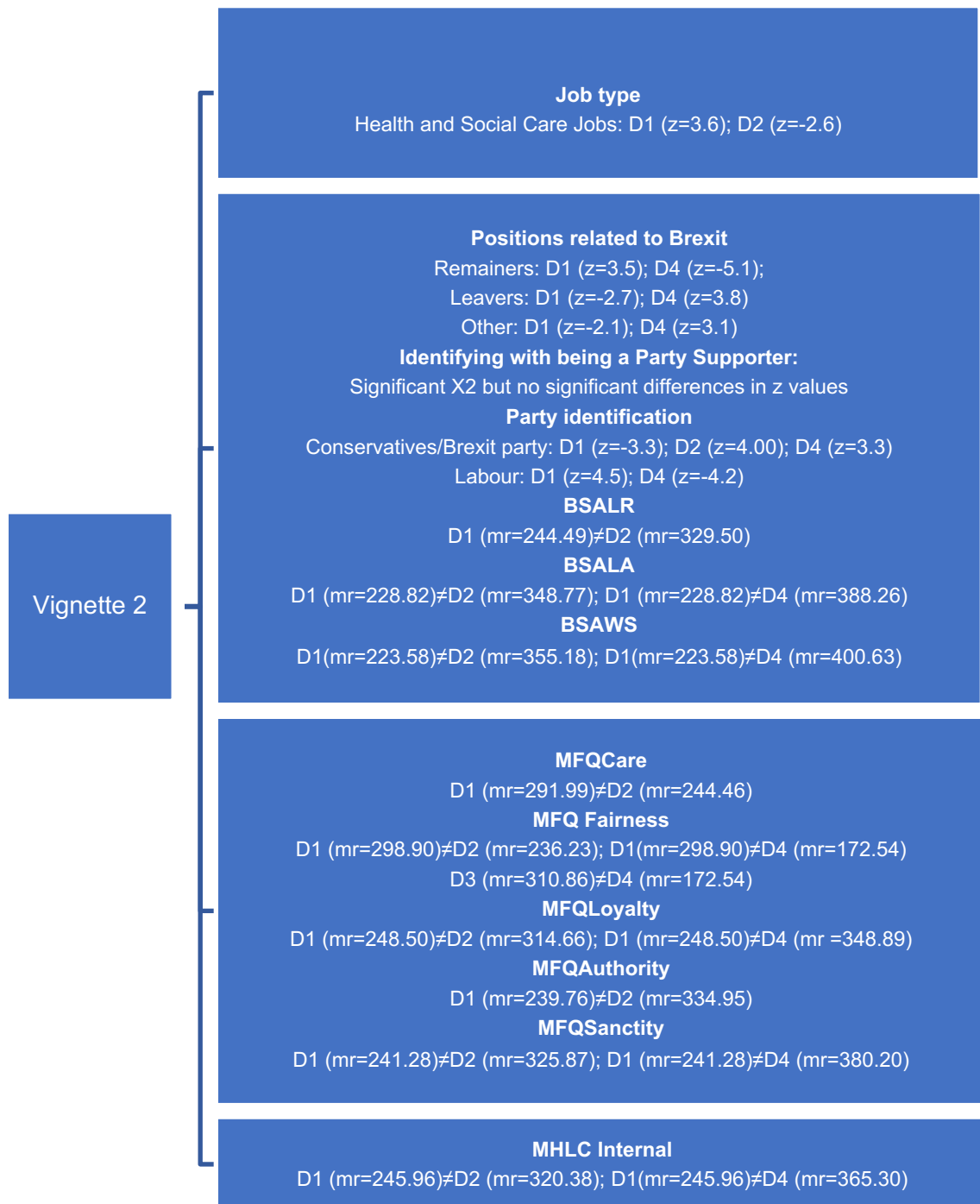


Figure 2. V2: Self-harm by burn and skin graft treatment

Vignette 3

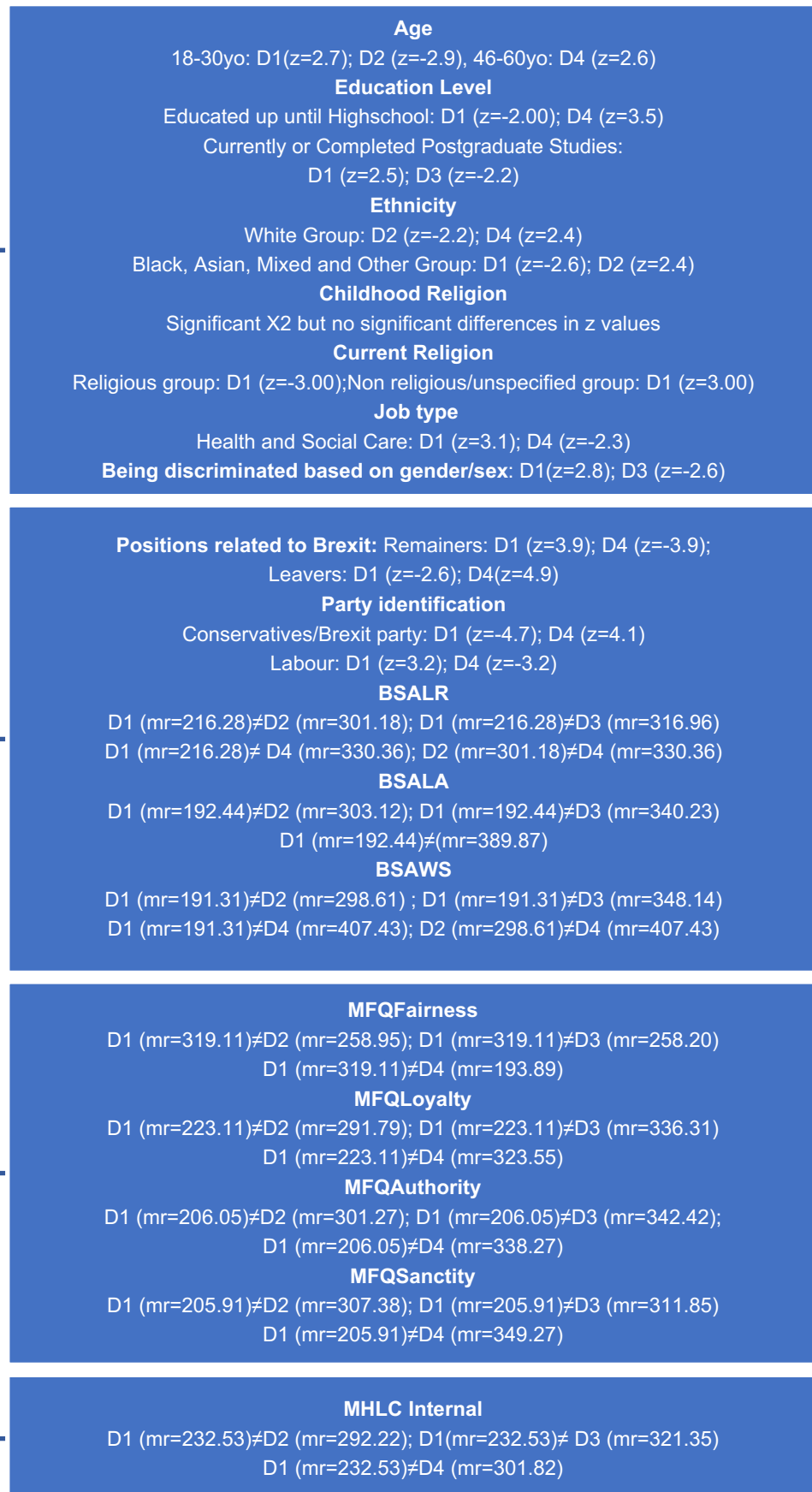


Figure 3. V3: MH care for an immigrant admitted to A&E after a road traffic accident

Vignette 4



Figure 4. V4: Antiretroviral medication for a couple at risk of contracting HIV

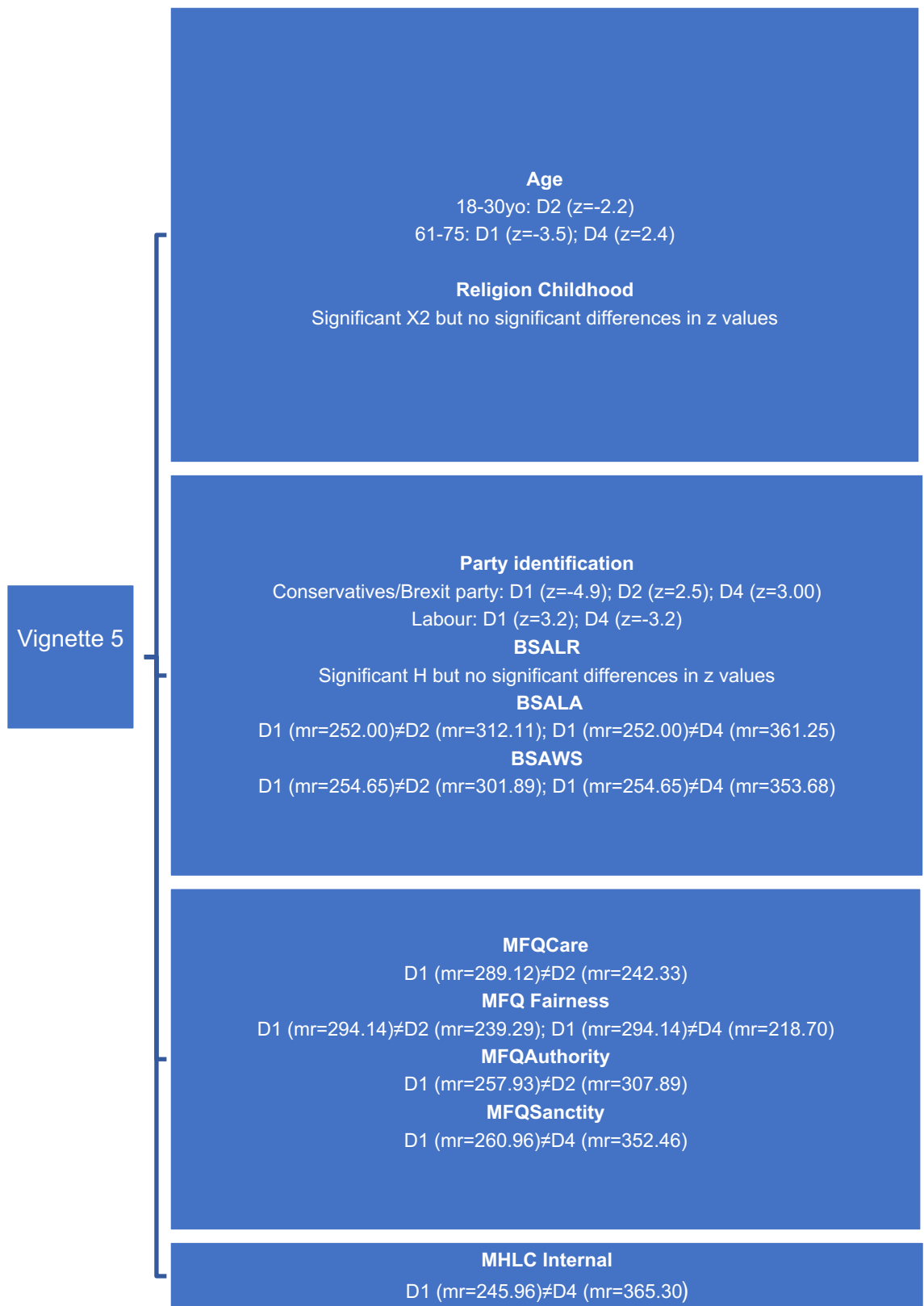


Figure 5. V5: MH care for someone who has already received extensive MH treatment

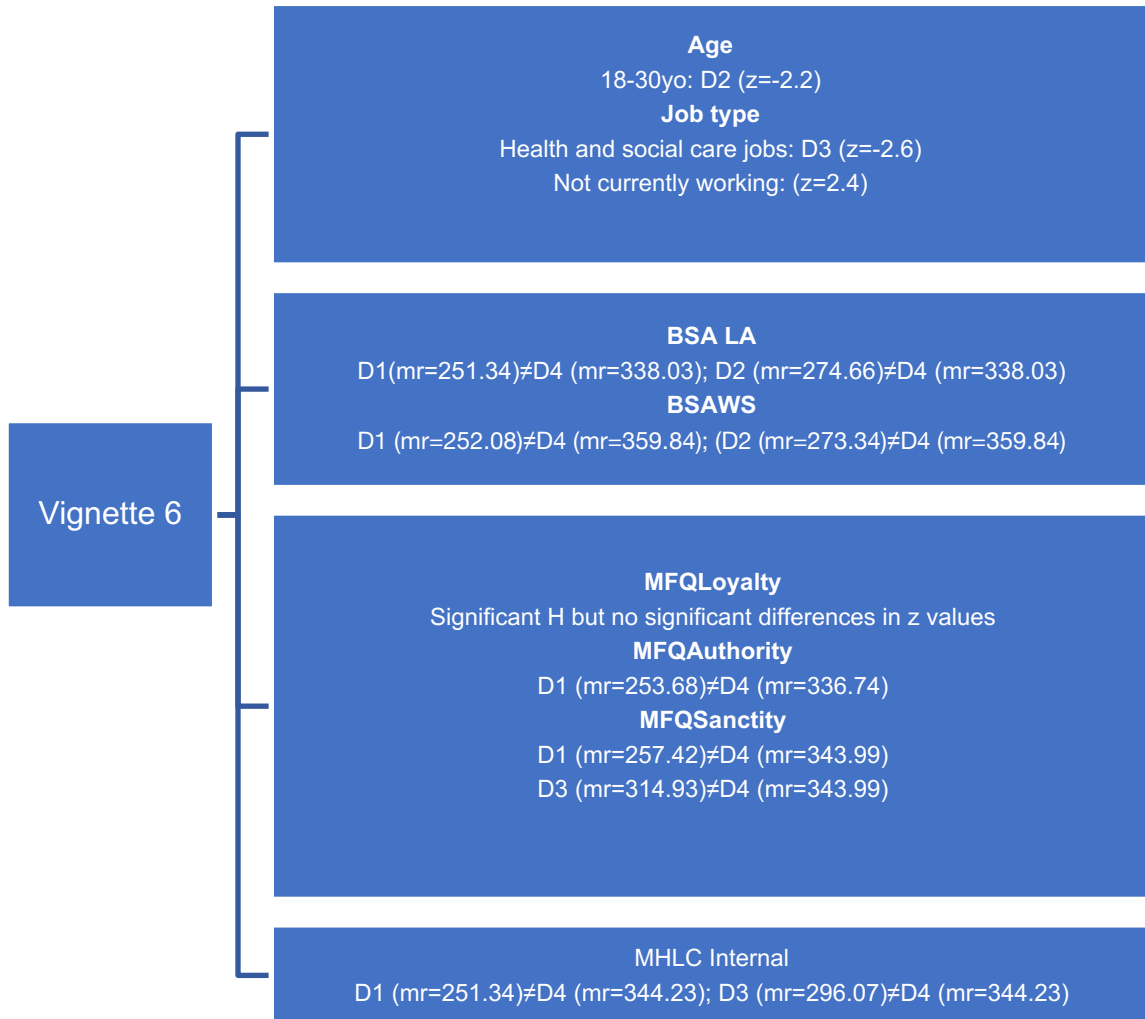


Figure 6. V6: Prioritising COVID treatment for someone vulnerable who has contracted COVID while breaking lockdown rules

4.2.3. RQ 2: Do specific sets of variables (demographic characteristics, political beliefs, moral values, HLC and perceived access to healthcare) predict PHRA?

The significant differences between options chosen for each vignette and personal factors (demographic characteristics, political beliefs, access to healthcare, as well as scores on moral foundations, health locus of control, and political questionnaires) suggested that a predicting model could be established and that the presence of a specific set of variables may predict option choice on vignettes. However, when entering the data in Multinomial Logistic modelling regressions, the low count cells (as presented on Table 11) encountered did not allow for the goodness of fit to be relied upon and predictive analyses were not retained. Low count cells were present in the initial statistical analyses and thought to be linked to lack of heterogeneity in the sample (which was low in men and right-wing participants). Many groups (ethnicity, religion) were merged so that there were more participants across cells. However, this was limited by requirements to conserve meaning (Osborne, 2017). Preference was therefore given to simpler analyses that respected the data and allowed the conclusions present in RQ1 rather than further merging (Cochran, 1954). The merging of data is held as a limitation of this study and is discussed later.

4.2.4. RQ 3: What are participants views on their decision-making process regarding PHRA?

Participants were given the opportunity to comment further on their decision-making process. Content analysis was used to analyse and categorise the data into the following seven areas: some participants wished to prioritise needs based on clinical urgency (1), while others wished to prioritise according to moral comparison with other patients on the waiting-list (2). Additional categories of statements considered whether patients met conditions participants deemed fair (3), or whether the treatment should be available as a basic right to care, with no level of prioritisation deemed acceptable, aside from the “first-come-first-served-basis” (4). Statements also reflected a plurality of viewpoints and additional views that were not represented within the study (5). Comments about how healthcare needs to be more holistic and include more aspects than were described in the

vignettes were also represented (6). Finally, some comments were specific to vignettes and included views on immigration, the social cost of HIV, and the call for more resources and choices in treatment (7).

4.3. Contextualisation of study findings

The results suggest that there are differences in PHRA for different demographic groups, with various personal, political, and moral views. Each vignette presented its own set of results, indicating that PHRA may depend on ones' relationship with the specific topic rather than on participants having a strong ethical framework that they draw on. This study is entirely novel so cannot be compared with similar previous research, but the aspects found to be associated with PHRA are considered in relation to the existing literature below.

4.3.1. Demographic characteristics

Demographic characteristics varied greatly across the vignettes, with some vignettes (V2: skin graft after a self-harm; V5: repeated MH treatment; and V6: COVID treatment) only having few associations with the demographic characteristics (mainly whether participants worked in health and social care settings) and others (V1: organ transplant after substance misuse; V3: immigrant healthcare; and V4: HIV prevention drugs) being linked to a range of demographics. It is possible that the PHRA associated with demographic characteristics map onto views on immigration, same-sex relationships and responsibility for own illnesses, issues that have strong social narratives and are heavily politicised (Chan, 2019; Staniforth & Such, 2019; Turnbull-Dugarte, 2020). This may also be linked with ingroup processes, where one may show more empathy for issues that relate to oneself, compared with unfamiliar experiences that appear more abstract (Molenberghs & Louis, 2018; Paterson et al., 2019). This concept is supported by this study's results that those in the LGBTQ+ group were more likely to choose the vulnerability-based option and prioritise the allocation of retroviral drugs to prevent HIV. This group significantly differed from the heterosexual group who were observed to choose to deprioritise (option D4) more often on this vignette, and possibly framing risk-avoidance as an ethical social contract, following neoliberalist views that individuals must assume responsibility for their health.

Some of the findings about job types and PHRA may also suggest that having knowledge of certain conditions may lead to increased support for domain-specific allocation of resources. The present study supports previous findings that healthcare professionals have different views on PHRA than those in other professions (Clark et al., 2012) as evidenced by results on vignette 2, 3, 4 and 6. Ethnicity was also a significant factor in PHRA in Clark and al's (2012) work; such an association was supported by results of vignettes V3 (on healthcare for an immigrant) and V4 (on offering retroviral medication to prevent HIV). In Clark et al's study, it was hypothesised that this link may be due to the paucity of organ donations from ethnic minorities and therefore, this group was likely to reject organ allocation based on tissue-matching that disfavoured them. Within the study, the link is less evident, especially since the minoritised groups have been aggregated to increase statistical power, which led to a loss in data richness and thus limited potential hypotheses. However, the White group was represented more often than expected in those who chose D4 (that deprioritised those who were not born in the UK for treatment) on Vignette 3 which is in-line with previous research stating that White groups in the UK are more likely to vote for parties with right-wing policies than those from ethnic minorities (Barton, 2020). Furthermore, it suggests that when faced with ethical dilemmas that include an outgroup (immigrants), White participants may be more likely to consider resource allocation to their outgroups as a breach of social contracts, as suggested in Contractarianism and Communitarianism ethical stances. Those in the ethnic minority group were more likely to privilege the cost-efficiency option, taking an Utilitarianist position.

Findings from Linley and Hughes (2012) showed those on lower incomes are more likely to prioritise disadvantaged populations, compared to those with higher incomes. The present study found that participants earning less than £20,000 yearly were more likely than expected to choose D4 on Vignette 1 (not prioritising someone for liver transplant who had a history of drinking). This was contrary to previous findings that people in lower socio-economic groups would be more likely to experience compassion for those in a vulnerable situation (Linley & Hughes, 2012; Manstead, 2018). Unlike, Linley and Hughes (2012), the present

study did not have significant results for differences on PHRA based on health status (e.g., having a poor health).

Discrimination based on patients' characteristics has been well researched (e.g., Cobb & de Chabert, 2002) but it is important to reflect on the relationship between allocator and patient characteristics and how these interact with patients' features. In the vignettes, patients had characteristics that were often associated with negative social narratives, and some of the responses to their difficulties suggested that these narratives have been internalised by participants. Owen-Smith and colleagues (2015) study found that healthcare resource rationing is often generated through delay, deterrence, and deflection tactics. It may be important to highlight that those who already suffer from being central to pejorative narratives may also be easier to exclude (or to ration) because they cannot voice discontentment (i.e., those who do not speak English).

The results presented further challenge the ability of absolute reliability on Instrumental Rationality and add to the evidence that Practical Rationality is often operating (Eagle & De Vries, 2005; Russell & Greenhalgh, 2013). Regardless of whether these emotions and intuitions are a positive force that leads to emotion-based wisdom (e.g., Master, 2009; Russell & Greenhalgh, 2013), they also need to be accounted for by the frameworks that support non-discriminatory allocation. Arie (2008) suggests that reliable frameworks that support staff are needed, for example, when the family of an organ donor refuses to give organs to a specific ethnic group. It is essential that frameworks account for bias not only in professionals but also in patients/public and their families.

4.3.2. Perceived Access to Health

The set of associations relating to perceived access to health yielded only one significant association: participants who themselves had experienced gender-based discrimination as a barrier to healthcare services were more likely to have chosen the vulnerability-based option on the immigrant care vignette. This may be because they could relate to experiencing discrimination, however, it does not explain why this particular barrier to access was significant. Responses about access to health were probably the most impacted by the COVID-19 pandemic,

which led the redeployment of many health resources towards COVID-19 patient care, rather than a true depiction of usual experiences. The initial model of healthcare access discussed in this thesis framed access as encompassing: 1) Approachability; 2) Acceptability; 3) Availability and accommodation; 4) Affordability; and 5) Appropriateness of healthcare service (Levesque et al., 2013). The current context of COVID-19 has led most of these aspects to being removed or reduced. Although those with less financial resources have been hit the hardest by the current restrictions on health access (The King's Fund, 2021), all socioeconomic groups have experienced barriers in accessing care. This may have been through the absence of available resources (e.g. GP practices offering limited face-to-face appointments at the time of writing) or fear of contamination through attending healthcare settings (Czeisler et al., 2020). Therefore, further research about PHRA and perceived healthcare access when healthcare services return to usual ways of working is recommended.

4.3.3. Moral Values and Political Leaning

The MFT pertains to the idea that moral intuition is not based on reasoning and influences the way we react to the environment (Graham et al., 2011). Its relationship with political beliefs is well established (Haidt & Graham, 2007; Iyer et al., 2012), and supported by the data in this study where correlations between moral values and political beliefs questionnaires were significant in almost all combinations of subscales (aside from MFQCare and BSALA and BSAWS). Those with more right-wing, authoritarian, and anti-welfare state beliefs have been found to base their moral judgement on Sanctity, Authority and Loyalty concerns, and less on whether the context was fair or if someone was harmed. This group was also more likely to choose options for PHRA that encompassed deprioritising based on ones' responsibility for their own health and prioritising based on previous contributions through taxation.

Those who hold more left, libertarian and pro-welfare state views based their moral judgement on whether someone was harmed or whether something was fair, rather than on Sanctity, Authority and Ingroup (Haidt & Graham, 2007; Iyer et al., 2012). Participants with these attitudes were more likely to have chosen the

vulnerability-based option or to value cost-efficient prioritising. This gives additional weight to the associations found between moral values and PHRA, as well as between PHRA and political leaning. It also suggests that moral judgement is heavily politicised (although there has been debate on the direction of the relationship between moral judgement and political views [Day et al., 2014]), which therefore, also unsurprisingly politicises PHRA. Furthermore, the political leaning question about “what party would someone vote for if there was an election tomorrow?” was consistently related to responses across five of the vignettes. For vignette 6, on COVID-19, the deprioritising option was generally less likely to be chosen by Labour voters and Remainers. This may be because they were less likely to support the neoliberalist view of one’s own responsibility in health status (Mcgregor, 2001).

Lower scores on fairness-based moral judgement were associated with choice of D4 (responsibility-based option) aside from in vignette 6 (COVID-19), while high levels of concerns about moral fairness were associated with either the contribution-based option or the vulnerability-based option. This is interesting because it may be delineated by whether participants thought about fairness as deservedness or need-based. This suggests fairness as a multidimensional concept (Cookson & Dolan, 1999, 2000; Dobrin, 2012) that may benefit from being measured differently.

Vignette 6 suggests that that breaking lockdown rules caused the illness; participants who focussed on the vulnerability aspect of the patient rather than on the causation of the illness had a lower score on morality based on Authority and Sanctity. Those who looked at responsibility in illness-contraction were more likely to choose the fourth option, which deprioritised access. This also supports the link between sanctity and authority aspects based moral judgement as a form of social moderator for behaviours that are not valued by society (Graham et al., 2011; Schnall et al., 2008).

Results also support findings by Staniforth and Such (2019) that political narratives influence migrants’ healthcare provision. In the vignette about an immigrant’s access to care (Vignette 3), highest scores on moral judgement based on

Ingroup Loyalty were observed in those who chose the option about priority based on contribution through taxation. Similarly, the link between high scores on political scales (suggesting right, authoritarian, and anti-welfare views) and deprioritisation because they were born outside the UK, is in-line with studies showing that pejorative narratives about immigrants have been integrated with a range of social issues (Cornelis & Van Hiel, 2015; Green et al., 2016; Urbanska & Guimond, 2018).

Attitudes towards Brexit were associated with PHRA on vignettes 1 to 4. Whilst Remainers were observed to favour vulnerability or cost-efficiency options depending on the topic, Leavers consistently supported the option where patients were deprioritised because they were seen as being responsible for their own health. This is interesting because the literature suggests that voting to leave was influenced by the promise of delivering more funding for the NHS as well as having the following characteristics: older age, white, with lower educational levels, poor digital engagement, poor health, low life satisfaction and on benefit (Alabrese et al., 2019; Vote Leave, 2016). Some of these factors were analysed in this study and found to be associated with choosing the deprioritising option; the others (receiving benefits, and low life satisfaction) would be interesting variables to include in further research about PHRA.

The impact of these trends must be contextualised within the work of Klugger et al (2014), who stated that moral concerns that are not based on care and on fairness may in fact be amoral and not justifiably defensible. The authors stated that it is not because people hold moral principles based on sanctity, authority and in-group loyalty concerns that these are moral, and that if these are held as moral, then the limits of morality are questionable. The support for non-prioritisation of vulnerable groups by those with moral and political views associated with conservatives' set of morality and political views (as defined by Klugger et al, 2014 and Haidt et al., 2009) suggests that these moral values affect these groups. This is likely to support the status quo and is inherently problematic in the way healthcare resources are allocated.

4.3.4. Health Locus of Control

All vignettes showed differences in PHRA based on internal HLC scores. No other aspects of MHLC (Powerful Others and Chance) yielded significant results. No study to date shows a clear link between PHRA and HLC. Therefore, the link between internal HLC and PHRA is novel. In four of the vignettes less prioritisation of vulnerable groups (through opting for the responsibility-based statement) was associated with higher internal HLC. Having less internal HLC was associated with choosing the vulnerability-based option on all vignettes. Interestingly, choosing the PHRA option based on whether people have contributed to the system (D3) was linked with medium low internal HLC on the vignette about accessing treatment for COVID-19, but high internal HLC scores on the vignette on immigrant healthcare and on the vignette on HIV prevention. The lack of consistency across vignette suggests that whilst internal MHLC is associated with PHRA, the way it is mapped out on health conditions and marginalised groups varies. Previous research has evidenced links between high levels Internal LOC (albeit not in a health context) and party affiliation in the US, with democrats being driven by an external locus of control and Republicans having an internal locus of control (Sweetser, 2014). Therefore, it is possible that the variation in PHRA choice is associated with the social and political narratives, coupled with presentations depicted in the vignettes. Those who do not think that one can control disease contraction and attribute poor health to social and systemic issues are likely to be less blaming about the reasons a person is in the depicted situation, and more willing to allocate resources. In contrast, those who perceive poor health as controllable will expect those at risk to take responsibility for the way they behave to maintain their health and understand health-risk taking as a breach of social contacts. This position is problematic in the current setting where systemic injustices have led to social gradients in health (Marmot et al., 2020) and a large health divide in the UK (Garthwaite et al., 2016; Garthwaite & Bambra, 2017). It may be that having a high level of HLC is both empowering (in that it allows people to make decisions that will make them healthier and provides a perceived sense of control about their health outcomes) and gaslighting as it does not acknowledge the limitations that one may have about keeping oneself healthy and the internalised narrative of marginalisation.

4.3.5. Mapping on Ethical Frameworks

When considering the whole sample, option one (vulnerability-based and ethically deontological in nature) was chosen more often: when faced with a single patient almost half the participants opted for the deontological approach and attributed the resource. The second most popular choice was the utilitarianist position and a consequence-based prioritisation option, with contribution and responsibility-based options being chosen least. Given the trends associated with political views discussed above and the sample being largely Labour or Green supporters, it is likely that a more right-wing sample would have led to other options being preferred. However, the trends presented above were in-line with psychological research showing the association of deontological inclinations with empathy, whilst moral concerns were associated with utilitarian inclinations (Conway & Gawronski, 2013). However, religiosity was associated with choosing the deprioritising option in two vignettes while non-religious-participants were observed to favour the vulnerability-based option in three vignettes. This demonstrates religiosity as being integral aspect of ethical standpoints and adds support to research that links it with morally binding foundation (Labouff et al., 2017).

The content analysis highlighted another important aspect of the ethical viewpoints held by participants; that treatments discussed should be part of basic healthcare-rights. This refutes the argument for prioritisation altogether. This is in-line with the existing philosophical literature behind refusing to ration where choosing feels unethical or morally intolerable (Coast, 2000). It has been argued that newer, productive of ways of working will yield the necessary resources (Monitor, 2013), while an increase in government resources directed towards healthcare appears to be supported by the public (The Health Foundation, 2018b). Ways in which the NHS budget could be increased is beyond the scope of this thesis. Participants have mentioned the first-come-first-served approach – which is also stated as a solution in the literature; however, the Egalitarianisms questions this process (Calabresi & Bobbitt, 1978) as it does not address inequalities already present in the system (Powers & Faden, 2008).

4.3.6. Plurality of Views

The plurality of viewpoints expressed by participants in the content analysis supports studies that have found a plurality in ethical viewpoints when it comes to healthcare (Cookson & Dolan, 1999; McHugh et al., 2015; van Exel et al., 2015). Participants were given a fixed choice, and at times, demonstrated an additional comment may have helped capture the reasoning behind their choice. This study gave participants only one option for their primary preference. Therefore, a study that would give the possibility of choosing two or more ethical stances may be useful. This plurality of viewpoints is complex and may need to be considered when creating frameworks. Presented vignettes were drawn up from ethical positions that are thought to act as overarching framework for individuals. Yet, in this study, priority changed depending on vignette topics with opposite PHRA chosen for different issues. Cookson and Dolan's work (1999) suggests a plurality in what is considered to be fair in healthcare resource allocation. Yet, if frameworks are largely based on utilitarianism, but then also include aspects of opposing viewpoints, it is impossible to establish a working guideline. We must remain aware that plurality remains based on multiple, fair, ethical stances that may need to be merged, rather than on social narratives about deservedness and blame for certain groups. Frameworks must therefore account for the processes that accompany the evidence base, regarding its positive aspect (i.e., when anger leads to redressing social injustice) or its prejudicial aspect (i.e., when emotions are reaction to pejorative narratives).

4.4. Implications for Clinical Psychology and the Wider Health Context

4.4.1. Implications for Clinical Psychology and the Wider Health Context

Extensive research has shown that there has been widening in economic inequalities (Majumder, 2017; Wilkinson & Pickett, 2010) and that this had had a large detrimental effect on physical and emotional wellbeing, with the most disadvantaged in society being hit the hardest (Bambra & Garthwaite, 2015; Gellormino, Bambra, Spadea, Bellini, & Costa, 2011; Marmot et al., 2010; Pickett & Wilkinson, 2017). Morgan and colleagues reflected on how as clinical psychologists in the NHS, they bore witness to individual's stories rooted in discrimination and injustice and wondered whether it is enough for clinicians to provide a weekly

session, when clients then return to social and economic hardships (Waldegrave, Tamasese, Tuhaka, & Campbell, 2003, Morgan et al., 2019). In *Pebbles in Hand* (Morgan et al., 2019), the authors highlight how easy it is to focus on the clinical work, without looking at the bigger picture. The text also emphasises that our privileged position as psychologists may provide us with power in promoting services that encompass our values of social justice and underpin neoliberal aspects of the psychology sector (Ferraro, 2016), even when the responsibility may feel overwhelming. Their text compares actions to a pebble that when thrown into the water, has a ripple effect. It is hoped that this thesis exposes some of the issues of the current system that do not account for emotion and intuition in PHRA, especially when it is well documented that a 'good' evidence base is not always available (Gannon, 2015). It is also hoped that it will contribute to a body of work that challenges the status quo in health inequality. It is consistent with the pragmatic position taken by the author and aims to focus on the consequences of this research. As such, this work is not neutral; it can be seen as a small act of resistance (Wade, 1997). It is rooted in the author's experiences of working in a maladapted system where clients have reported feeling unheard (Rocque & Leanza, 2015). This new knowledge about people's PHRA will hopefully be considered within policy and framework development and bear witness to discrimination.

Clinical Psychologists have several roles in healthcare resource allocation. Firstly, in the clinical room, as evidence-based practitioners, they make a number of decisions that impact the client. Issues regarding an objective evidence base in MH have been previously established (Gannon, 2015) and are particularly relevant here, as much of clinical decision-making will factor other processes, such as time constraints. It is important that the clinician is aware of their own moral and political views, demographics and how this interacts with their views on clinical need. Interestingly, clinical psychology teaching often includes the concept of Social GRRRAAACCEEESSS (Burnham, 2012) and how clinicians must remain aware of visible and invisible differences with clients, however, there is little conversation about the impact that these have on allocation and care. Furthermore, in the NHS, clinicians evolve within a system with rules on allocation, sessions available, and resources. These services themselves often get their support from

NICE guidelines and Public Health Authority. At each level, a range of people make decisions about which resources will be available to whom. Additionally, patients seen by clinical psychologists experience these allocation decisions every time they interact with healthcare settings, and it is important for healthcare professionals, including applied psychologists, to be aware of what clients may have experienced. A better awareness of these processes is hoped to alleviate clinician bias, but also to open lines of communication between service users and therapists, regarding experiences of healthcare allocation (such as withholding or preferential treatment).

4.4.2. Implications at the Personal Level

Moral domains, and political views may impact preferences about healthcare resource allocations. Furthermore, issues of group membership and perception of access are thought to influence attitudes towards marginalised groups, especially for those with less resources. These views are likely to influence individuals' support for policies, and the care individuals may seek for themselves and others.

Furthermore, health policies are political issues, with media and social narrative influencing a neoliberalist agenda that include personal ownership of systemic failures (e.g. health injustices in lower socioeconomic areas [Marmot, 2010, 2020]). Such an agenda thrives on blaming narratives of deservedness and responsibility in ill-health. Some of the results presented in this study may illustrate these internalised narratives. It is hoped that this work can be useful in acknowledging some of the biased attitudes individuals may hold towards certain groups and help support health policies and systems that are based on inclusion rather than those who do not cater for marginalised groups.

4.5. Recommendations and Proposed framework

Competency frameworks are multiple, but often focus on individual learning, yet a 'collective discourse of competence' (Lingard, 2009, p. 627) may be more appropriate for including shared knowledge through discussion and collective learning. Clinical intuition and the use of emotion in rational decision was described as "being human" by Russell and Greenhalgh (2013, p. 2) and belongs to processes of

practical rationality when the evidence-base is too limited, inexistent or inappropriate for a specific case. Issues about evidence-based hierarchies were established in the introduction (Gannon, 2015), and it is likely that the evidence base is often insufficient. It is also argued that emotions and intuition can be an important part of decision-making, with anger for example, perhaps leading to seeking justice (Lee et al., 2012; Master, 2009; Zembylas, 2007). The results of the present study suggest 1) that moral values, internal health locus of control, political leaning and demographic characteristics are all somehow associated with PHRA, and 2) that these are not consistent across issues, suggesting that no stable ethical framework is guiding participants' PHRA. Therefore, a model that can account for processes associated with 'being human', Practical rationality, emotions, intuitive reactions, and bias is important. This proposed framework is not aimed at changing the way healthcare resources are allocated where the evidence base is reliable, despite issues of epistemic and systemic injustices that often remain (Gannon, 2015). Instead, the proposed framework is intended to add to current frameworks of rationality; this is so that intuition, experience and emotion-led decision making is valued, while bias is accounted for in clinical practice and in research leading to the evidence-base.

Learning from Russell and Greenhalgh's (2013) study that showed how emotion-based wisdom and intuitive processes were left unrecorded in final documentations remains central. This framework aims to include emotion-based processes in the documentation and improve transparency. The researcher believes that providing a framework at micro, meso, exo and macro levels would create shared learning spaces that would promote a fairer system of allocation for patients. Furthermore, a system of accountability may support social justice and human rights-based approaches to psychology. The latter approach stipulates that healthcare professionals are both rights- and duty-bearers and that it is important for human-rights to be at the forefront of psychology and how services are designed, researched, and applied (Patel, 2019). It is with this in mind that this framework was created.

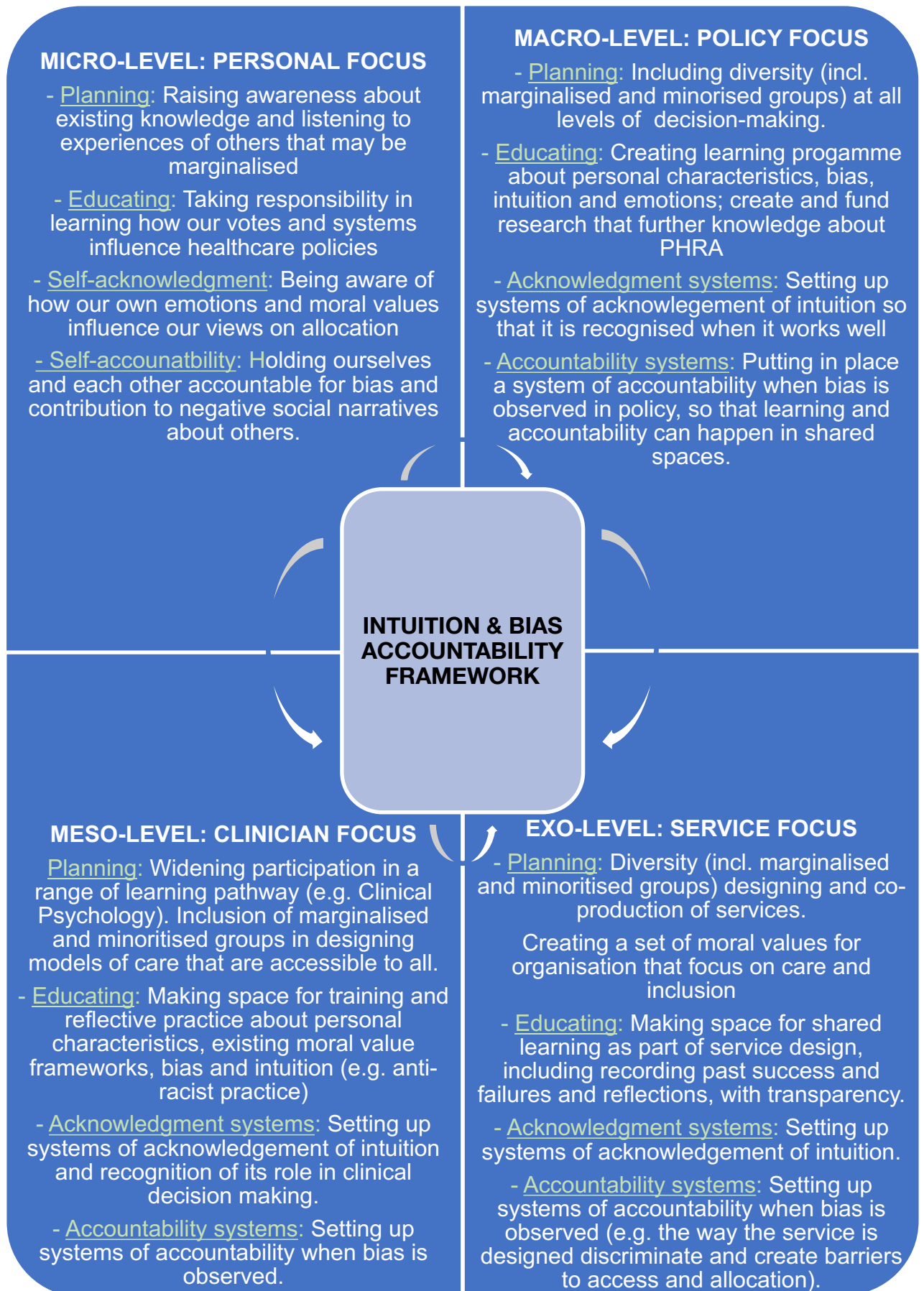


Figure 7. Intuition & Bias Accountability Framework, Developed by the Researcher.

4.6. Strengths and Limitations

4.6.1. Sample, data collection and design

Online recruitment was thought to be suitable for this research project because it may improve response rate (Ilieva et al., 2002) and protects against data loss and errors in transferring the data (Carbonaro & Bainbridge, 2000; Ilieva, Baron & Healey, 2002). Furthermore, this cold elicitation method may provide a good account of preferences in comparisons with face-to-face interviews (Dolan & Tsuchiya, 2007), where respondents may express viewpoints based on social pressure (McColl et al., 2001).

The sample size met power calculation requirements (Erdfelder et al., 1996) and many of the sub-groups matched UK estimated population distribution (ethnicity, religion, people born in and outside of the UK); however, the study was hindered by low participation from men, those with a disability, and the lack of diversity in terms of education levels and political views. It is thought that a less homogenic sample may have addressed the statistical issue of low cell size in some categories.

The lack of diversity led to aggregating some the data to increase cell number in specific cells, in particular, ethnicities, religion, gender, and sexual orientations. The researcher was mindful of providing text boxes so that participants could self-identify, however, statistical requirements for analysis led to the aggregation. Religious groups were merged between religious and non-religious which did not allow for inter-religion comparison but yielded some very interesting results (those in the religious group were less likely to prioritise based on vulnerability). The issue of aggregating Black, Asian and other minority ethnic together was difficult to reconcile with, because, similarly to the contentious term BAME, it suggests that the experiences of all non-white groups are understood as similar (Aspinall, 2021), which is not the researcher's viewpoint. Nonetheless, findings on specific vignettes suggest that the experiences of the group that included Black, Asian, and other minority ethnic were unlike the preferences of the white group, and may reflect experiences of systemic discrimination in healthcare (Iacobucci, 2021). The same issue can be raised for LGBTQ+ groups and the

need to acknowledge the heterogeneity of this group (Parmenter et al., 2020). Despite this limitation, broad categories have led to essential findings and further research that allows for various ethnicities, cultures, and communities to be heard in more details is recommended.

4.6.2. Self-Report Questionnaires

All data in this study was self-reported on Qualtrics using questionnaires. The validity of such self-reported questionnaires has been challenged (Barker, Pistrang & Elliott, 2002) with social desirability biases remaining problematic (Grimm, 2010). Furthermore, issues around comprehension of the constructs presented and forced response are also common. Quantifying responses based on vague terminology (e.g. 'somewhat') reduces opportunity for more detailed response (Barker et al., 2002). Furthermore, English requirements and the digital aspect of the study are likely to have excluded a part of the population (Murray & Buller, 2007; Seifert et al., 2021). However, questionnaires have elicited meaningful responses and a range of perspectives. Moral judgement measurement and vignette design are discussed further below.

4.6.2.1. *Measuring Moral Domains*

Moral values were measured using the Moral Foundations Questionnaire (Graham et al., 2011) which understands moral values as distinct moral foundations that one intuitively engages with and bases their decision upon (Graham et al., 2009). The Moral Foundation Questionnaire is central to the theory, where it has been used to verify hypotheses on differences in morality frameworks between Conservatives and Liberals in the US and in many other countries (e.g. Turkey; Yalçındağ et al., 2019). However, Tamul and colleagues (2020) highlighted some issues with internal consistencies with this measure ($\alpha=0.69-0.86$), which were not as high as expected in the initial validation studies (which is in line with the lower internal consistency in two of the study's subscales). The questionnaires' authors argued that this was due to a trade-off between internal validity and content validity (Graham et al., 2011), a point refuted by Henson (2001) who states that for such scales, items should be highly interrelated. The

issue of poor reliability is not without consequences and is more likely to create errors and support for the null hypothesis (Hedge et al., 2018). Whilst there are methods to correct attenuated variable (Spearman, 1904), doing so does not always yield more accurate representations of true correlations (Nimon et al., 2012), and therefore were not utilised in this study. An alternative measure of morality (e.g. the Morality as Cooperation Measure; Curry et al., 2019) may be help building further on the link presented here between moral judgement and PHRA.

4.6.2.2. Measuring Preferences for Healthcare Resource Allocation

The use of vignettes has become increasingly popular over the last few years. Yet, papers about methodological aspects of using them are limited (Bradbury-Jones et al., 2012). Vignettes have several advantages in that they take minimal resources to administer and do not require in-depth knowledge of the topics by the respondents while providing enough details to ensure that the participants respond to a specific question (Hughes & Huby, 2002). Vignette use also allows the exploration of sensitive topics (Barter & Renold, 1999). However, several issues have been noted. For example, it has been argued that the lack of contextual information makes the situation artificial (Grey et al., 2002) and generalisation should be made with caution (Hughes & Huby, 2002) because the interactions between vignettes and real-life responses are not known (Hughes, 1998). However, research has shown that when compared to videos, the use of vignettes produced consistent results in terms of in-depth cognitive involvement (Johnston & Freeman, 1997).

Although a careful design method was used to construct the vignettes, as the topics differed, wording was not similar across all vignettes, and it may be that not all statements are equally loaded. Explicit bias has been linked with word use and may lead to positive or negative elicitation (Ashfrod, Brown & Curtis, 2018).

Therefore, further exploration of language used may be useful. Furthermore, reliability of the vignettes is difficult to evaluate due to the categorical nature of the data (e.g. Cronbach Alpha and Parallel internal consistency tests cannot be used with categorical data) and because each vignette captured a reaction to a different group. However, more research is needed to explore if any other factors are

responsible for the variance between dimensions for each vignette (e.g. language used).

Ultimately, effort invested in increasing the vignettes' validity through thorough focus on their development is primordial (Hughes & Huby, 2004). The pilot phase and the use of clinicians' feedback during vignette development is thought to have contributed to them being well received by participants. The author received emails stating that these were interesting topics that led to great reflections. This was confirmed by some of the comments in the content analysis. Some participants did however state that the options given did not fully match their views and it was helpful to have a text box to get more information about their personal views. An additional option about a "first-come-first-served" position may have been helpful for the respondent as many of the comments suggested that this would be the fairer approach. However, such option does not redress existing inequalities (Calabresi & Bobbitt, 1978). These vignettes would benefit from further validation through replication studies.

4.6.2.3. Novelty

Research to date has investigated how ethical viewpoints mapped onto individual views in PHRA and included a focus on patient characteristics (i.e. patient groups discriminated against by healthcare provision, such as migrants, [Staniforth & Such, 2019]). However, there are only two studies post-1999 (the date of the creation of NICE) that account for the characteristics of the participants (the allocators) rather than only on patient's features (Clark et al., 2012; Linley & Hughes, 2012), and neither of them offers an understanding of moral judgement, political belief, perceived access to health or health locus of control associated with their decision. The significant differences in PHRA (options on the vignettes) based on different mean rank scores on the five moral foundation questionnaires subscales, internal HLC, political beliefs and some demographics suggest that these associations are meaningful and worthy of exploration. This study is novel in presenting results implying that PHRA are often topic-dependent intuitive reactions, rather than based on a defined ethical framework. The novel framework that is offered as part of this thesis provides a structure for those who wish to move towards fairer and more self-aware ways of working in healthcare.

4.7. Future research

There are many potential intersections between the variables covered in this topic. Specific lines of further enquiries could include:

- i. Qualitative research examining reasons for allocations.
- ii. Looking at different vignettes with other marginalised groups to further develop knowledge of the dynamics present in PHRA.
- iii. A larger sample may allow for the inclusion of the groups that were underrepresented in this sample (male, conservative voters, lower socio-economic groups); for establishment of directional causation of the variables discussed in this study; and for differences based on ethnicity, sexuality, and religion to be analysed.
- iv. Perceived access to health was impacted by COVID-19 and a replication of the study after the pandemic may offer a deeper insight in these issues.
- v. It would be useful to explore the impact of the language used in vignettes and for future research to validate the vignettes further through systematically swapping wording between vignettes and measuring the effect of this.
- vi. The data provided by this study is mainly categorical; similar vignettes could use Likert scales rather than discrete dimensions to allow for more statistical options. This would also offer for more internal reliability testing of the vignettes.

4.7. Conclusion

This study has explored how moral judgement domains, health locus of control, political beliefs, perceived access to health and demographics characteristics were associated with PHRA. Chi Square analyses suggested that demographic characteristics (e.g., age, religiosity, ethnicity, job types, etc.) were associated with specific PHRA in some vignettes but not others. Kruskal Wallis and Dunn's post hoc tests showed differences in PHRA based on political views, moral values, and internal health locus of control on most vignettes (although not all). Deprioritising certain groups or allocating based on contribution through taxation

was associated with right-wing, Authoritative, and anti-welfare states views, high internal Locus of Control and Loyalty, Sanctity and moral concerns. Conversely, participants who were more left-wing, Libertarian, and pro-welfare state views with a lower internal Locus of Control and moral concerns about Care, were more represented in the group that favoured the vulnerability-based options. However, specific results differed greatly for each vignette. Fairness was both associated with vulnerability and contribution-based options, suggesting a multidimensional aspect to fairness. PHRA was different for those who had experienced discriminations in health services based on their gender or sex, in that they favoured the vulnerability-based option and were less likely to choose the contribution-based option on the vignette about immigrant healthcare. The way associations with PHRA mapped out differently for each vignette adds to research, suggesting that personal characteristics are relevant in PHRA and that they are often topic-dependent, rather than based on a defined ethical framework. There is a concern that intuitive moral judgement, and inter-group processes lead to conscious and unconscious favouring of certain groups at several steps of resource allocation, leading to potential further health inequalities. The author designed and recommended a framework that holds the healthcare system's stakeholders accountable for their intuitive responses to PHRA, with a focus on reducing bias and celebrating practical rationality when applied to redressing healthcare inequalities.

5. REFERENCES

- Alabrese, E., Becker, S. O., Fetzer, T., & Novy, D. (2019). Who voted for Brexit? Individual and regional data combined. *European Journal of Political Economy*, 56, 132–150. <https://doi.org/10.1016/j.ejpoleco.2018.08.002>
- Allen, M. (2017). Survey: Demographic questions. *The SAGE Encyclopedia of Communication Research Methods*. SAGE Publications, Inc. <https://doi.org/10.4135/9781483381411.n601>
- Althubaiti, A. (2016). Information bias in health research: Definition, pitfalls, and adjustment methods. In *Journal of Multidisciplinary Healthcare* (Vol. 9, pp. 211–217). Dove Medical Press Ltd. <https://doi.org/10.2147/JMDH.S104807>
- Anand, P., & Wailoo, A. (2000). Utilities versus rights to publicly provided goods: Arguments and evidence from health care rationing. *Economica*, 67(268), 543–577. <https://doi.org/10.1111/1468-0335.00224>
- Arie, F. (2008). Ethical issues of transplant coordinators in Japan and the UK. *Nursing Ethics*, 15(5), 656–669. <https://doi.org/10.1177/0969733008092874>
- Ashford, R. D., Brown, A. M., & Curtis, B. (2018). Substance use, recovery, and linguistics: The impact of word choice on explicit and implicit bias. *Drug and Alcohol Dependence*, 189, 131-138.
- Aspinall, P. J. (2021). BAME (black, Asian and minority ethnic): The “new normal” in collective terminology. *J Epidemiol Community Health*, 75(2). <https://doi.org/10.1136/jech-2020-215504>
- Bambra, C., Riordan, R., & Ford, J. (2020). The COVID-19 pandemic and health inequalities. *J Epidemiol Community Health*, 74, 964–968. <https://doi.org/10.1136/jech-2020-214401>
- Barbalet, J. M. (2001). *Emotion, social theory, and social structure : a macrosociological approach*. Cambridge University Press. https://books.google.co.uk/books/about/Emotion_Social_Theory_and_Social_Structu.html?id=Z4pEmvgXp8gC
- Barchard, K. A., & Williams, J. (2008). Practical advice for conducting ethical online experiments and questionnaires for United States psychologists. *Behavior Research Methods*, 40(4), 1111–1128. <https://doi.org/10.3758/BRM.40.4.1111>
- Barter, C., & Renold, E. (1999). Social research update 25: The use of vignettes

- in qualitative research. *Social Research Update*, 25.
<https://sru.soc.surrey.ac.uk/SRU25.html>
- Barton, C. (2020). *GE2019: How did demographics affect the result?*
<https://commonslibrary.parliament.uk/ge2019-how-did-demographics-affect-the-result/>
- Beattie, P., Bettache, K., Ching, K., Chong, Y., & Kou, C. (2019). Who is the Neoliberal? Exploring neoliberal beliefs across East and West. *Journal of Social Issues*, 75(1), 1–29. <https://doi.org/10.1111/josi.12309>
- Bergen, N., & Labonté, R. (2020). “Everything is perfect, and we have no problems”: Detecting and limiting social desirability bias in qualitative research. *Qualitative Health Research*, 30(5), 783–792.
<https://doi.org/10.1177/1049732319889354>
- Berger, V. W., & Zhou, Y. (2014). Kolmogorov–smirnov test: Overview. *Wiley statsref: Statistics reference online*.
<https://doi.org/10.1002/9781118445112.stat06558>
- Bhaskar, R. (1975). *A realist theory of science*. Routledge.
<https://www.routledge.com/A-Realist-Theory-of-Science/Bhaskar/p/book/9780415454940>
- Booth, A., Sutton, A., & Papaioannou, D. (2016). *Systematic Approaches to a Successful Literature Review*. Sage.
- Bradbury-Jones, C., Taylor, J., & Herber, O. R. (2012). Vignette development and administration: A framework for protecting research participants. *International Journal of Social Research Methodology*, 17(4), 427–440.
<https://doi.org/10.1080/13645579.2012.750833>
- Braveman, P., & Gruskin, S. (2003). Poverty, equity, human rights and health. *Bulletin of the World Health organization*, 81, 539–545.
<https://doi.org/10.1590/S0042-96862003000700013>
- Brecher, B. (1999). Liberal and communitarian conceptions of medical need, with particular reference to the management of organ transplantation. *Bioethics*, 16(6), 609–614.
- British Psychological Society. (2014). *Code of human research ethics*.
<https://www.bps.org.uk/sites/bps.org.uk/files/Policy - Files/BPS Code of Human Research Ethics.pdf>
- Bulman, M. (2017, April 17). Thousands of asylum seekers and migrants wrongly

- denied NHS healthcare | The Independent | The Independent. *The Independent*. <https://www.independent.co.uk/news/uk/home-news/asylum-seekers-migrants-wrongly-denied-nhs-healthcare-cancer-doctors-phil-murwill-a7672686.html>
- Burnham, J. (2012). Developments in social GRRRAACCEEESSS: Visible-invisible and voiced-unvoiced. In *Culture and Reflexivity in Systemic Psychotherapy: Mutual Perspectives* (pp. 139–160). Taylor and Francis. <https://doi.org/10.4324/9780429473463-7>
- Burstein, P. (2003). The impact of public opinion on public policy: A review and an agenda. *Political research quarterly*, 56(1), 29-40.
- Bussey, K., & Bandura, A. (1999). Social cognitive theory of gender development and differentiation. *Psychological Review*, 106(4), 676–713. <https://doi.org/10.1037/0033-295X.106.4.676>
- Cabinet Office. (2021). GOV.UK - National lockdown: Stay at home guidance. *Guidance: (COVID-19) Coronavirus restrictions: What you can and cannot do*. <https://www.gov.uk/guidance/national-lockdown-stay-at-home#when-you-can-leave-home>
- Cabinet Office Behavioural Insights Team. (2012). *Test, learn, adapt: Developing public policy with randomised controlled trials*. <https://www.gov.uk/government/publications/test-learn-adapt-developing-public-policy-with-randomised-controlled-trials>
- Cacioppo, J. T., Semin, G. R., & Berntson, G. G. (2004). Realism, instrumentalism, and scientific symbiosis: psychological theory as a search for truth and the discovery of solutions. *American psychologist*, 59(4), 214. <https://doi.org/10.1037/0003-066X.59.4.214>
- Calabresi, G., & Bobbitt, P. (1978). *Tragic choices*. W.W. Norton & Company.
- Caldicott Committee. (1997). Report on the review of patient-identifiable information. *London: NHS Executive, December*, 1–137. http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_4068404.pdf%5Cnhttp://scholar.google.com/scholar?hl=en&btnG=Search&q=intitle:Report+on+the+Review+of+Patient-Identifiable+Information#3%5Cnhttp://scholar.google
- Chan, E. Y. (2019). The politics of intent: Political ideology influences organ donation intentions. *Personality and Individual Differences*, 142, 255–259.

- <https://doi.org/10.1016/j.paid.2018.12.022>
- Chan, Y., & Walmsley, R. P. (1997). Learning and understanding the Kruskal-Wallis one-way analysis-of-variance-by-ranks test for differences among three or more independent groups. *Physical therapy, 77*(12), 1755-1761. <https://doi.org/10.1093/ptj/77.12.1755>
- Chapman, R., Watkins, R., Zappia, T., Nicol, P., & Shields, L. (2011). Nursing and medical students' attitude, knowledge and beliefs regarding lesbian, gay, bisexual and transgender parents seeking health care for their children. *Journal of Clinical Nursing, 21*(7–8), 938–945. <https://doi.org/10.1111/j.1365-2702.2011.03892.x>
- Cheng, C., Cheung, M. W. L., & Lo, B. C. Y. (2016). Relationship of health locus of control with specific health behaviours and global health appraisal: A meta-analysis and effects of moderators. *Health Psychology Review, 10*(4), 460–477. <https://doi.org/10.1080/17437199.2016.1219672>
- Chusmir, L. H., & Parker, B. (1991). Gender and situational differences in managers' values: A look at work and home lives. *Journal of Business Research, 23*(4), 325-335.
- Clark, M. D., Leech, D., Gumber, A., Moro, D., Szczepura, A., West, N., & Higgins, R. (2012). Who should be prioritized for renal transplantation?: Analysis of key stakeholder preferences using discrete choice experiments. *BMC Nephrology, 13*(1), 1–14. <https://doi.org/10.1186/1471-2369-13-152>
- Cobb, M., & de Chabert, J. T. (2002). HIV/AIDS and care provider attributions: Who's to blame? *AIDS Care, 14*(4), 545–548. <https://doi.org/10.1080/09540120208629672>
- Cochran, W. G. (1954). Some methods for strengthening the common χ^2 tests. *Biometrics, 10*(4), 417. <https://doi.org/10.2307/3001616>
- Cohen, J. (1992). A power primer. *Psychological Bulletin, 112*(1), 155–159. <https://doi.org/10.1037/0033-2909.112.1.155>
- Conway, P., & Gawronski, B. (2013). Deontological and Utilitarian inclinations in moral decision making: A process dissociation approach. *Journal of Personality and Social Psychology, 104*(2), 216–235. <https://doi.org/10.1037/a0031021>
- Cookson, R., & Dolan, P. (1999). Public views on health care rationing: A group discussion study. *Health Policy, 49*(1–2), 63–74.

- [https://doi.org/10.1016/S0168-8510\(99\)00043-3](https://doi.org/10.1016/S0168-8510(99)00043-3)
- Cookson, R., & Dolan, P. (2000). Principles of justice in health care rationing. *Journal of Medical Ethics*, 26(5), 323–329.
<https://doi.org/10.1136/jme.26.5.323>
- Cornelis, I., & Van Hiel, A. (2015). Extreme-right voting in Western Europe: The role of social-cultural and antiegalitarian attitudes. *Political Psychology*, 36(6), 749–760. <https://doi.org/10.1111/pops.12187>
- Cornish, F., & Gillespie, A. (2009). A pragmatist approach to the problem of knowledge in health psychology. In *Journal of Health Psychology* (Vol. 14, Issue 6, pp. 800–809). SAGE Publications.
<https://doi.org/10.1177/1359105309338974>
- Correll, J., Judd, C. M., Park, B., & Wittenbrink, B. (2010). Measuring prejudice, stereotypes and discrimination. In *The SAGE Handbook of Prejudice, Stereotyping and Discrimination* (pp. 45–62). SAGE Publications Inc.
<https://doi.org/10.4135/9781446200919.n3>
- Courtwright, A. (2013). Stigmatization and public health ethics. *Bioethics*, 27(2), 74–80. <https://doi.org/10.1111/j.1467-8519.2011.01904.x>
- Cousineau, D., & Chartier, S. (2010). Outliers detection and treatment: a review. *International Journal of Psychological Research*, 3(1), 58–67.
<https://doi.org/10.21500/20112084.844>
- Cubbon, J. (1991). The principle of QALY maximisation as the basis for allocating health care resources. *Journal of Medical Ethics*, 17(4), 181–184.
<https://doi.org/10.1136/jme.17.4.181>
- Curry, O. S., Jones Chesters, M., & Van Lissa, C. J. (2019). Mapping morality with a compass: Testing the theory of ‘morality-as-cooperation’ with a new questionnaire. *Journal of Research in Personality*, 78, 106–124.
<https://doi.org/10.1016/j.jrp.2018.10.008>
- Curtice, J., Clery, E., Perry, J., Phillips, M., & Rahim, N. (2019). *British Social Attitudes 36*.
- Czeisler, M. É., Marynak, K., Clarke, K. E. N., Salah, Z., Shakya, I., Thierry, J. M., Ali, N., McMillan, H., Wiley, J. F., Weaver, M. D., Czeisler, C. A., Rajaratnam, S. M. W., & Howard, M. E. (2020). Delay or avoidance of medical care because of COVID-19: Related Concerns — United States, June 2020. *MMWR. Morbidity and Mortality Weekly Report*, 69(36), 1250–

1257. <https://doi.org/10.15585/mmwr.mm6936a4>
- Daly, S., & Allen, J. (2018). *Healthy high streets good place-making in an urban setting*. <http://www.instituteofhealthequity.org/resources-reports/healthy-high-streets-good-place-making-in-an-urban-setting>
- Damasio, A. (1994). *Descartes' error: Emotion, reason and the human brain*. Vintage.
- Daniels, N., & Sabin, J. (2002). *Setting limits fairly - Learning to share resources for health*. Oxford University Press.
<https://global.oup.com/academic/product/setting-limits-fairly-9780195325959?cc=pt&lang=en&>
- Davey, A., & Savla, J. (2009). Estimating statistical power with incomplete data. *Organizational Research Methods*, 12(2), 320–346.
<https://doi.org/10.1177/1094428107300366>
- Day, M. V, Fiske, S. T., Downing, E. L., & Trail, T. E. (2014). *Shifting liberal and conservative attitudes using moral foundations theory*.
<https://doi.org/10.1177/0146167214551152>
- Denzin, N. K. (2010). Moments, mixed methods, and paradigm dialogs. *Qualitative Inquiry*, 16(6), 419–427.
<https://doi.org/10.1177/1077800410364608>
- Department for Work and Pensions. (2018). *Family resource survey 2018 at a glance: Additional tables and data*.
<https://www.gov.uk/government/statistics/family-resources-survey-financial-year-201819>
- Dewey, J. (1941). Propositions, warranted assertibility, and truth. *The Journal of Philosophy*, 38(7), 169. <https://doi.org/10.2307/2017978>
- Dobrin, A. (2012). It's not fair! But what is fairness? *Psychology Today*.
<https://www.psychologytoday.com/gb/blog/am-i-right/201205/its-not-fair-what-is-fairness>
- Doctors of the World. (2017). *Deterrence, delay and distress: The impact of charging in NHS hospitals on migrants in vulnerable circumstances*.
https://www.doctorsoftheworld.org.uk/wp-content/uploads/import-from-old-site/files/Research_brief_KCL_upfront_charging_research_2310.pdf
- Dolan, P., & Tsuchiya, A. (2006). The elicitation of distributional judgements in the context of economic evaluation. In A. M. J. Jones (Ed.), *The Elgar*

- Companion to Health Economics*. Edward Elgar Publishing.
https://ideas.repec.org/h/elg/eechap/3572_36.html
- Dovidio, J. F., & Gaertner, S. L. (2004). Aversive racism. *Advances in Experimental Social Psychology*, 36, 1–52. [https://doi.org/10.1016/S0065-2601\(04\)36001-6](https://doi.org/10.1016/S0065-2601(04)36001-6)
- Eagle, L. M., & De Vries, K. (2005). Exploration of the decision-making process for inpatient hospice admissions. *Journal of Advanced Nursing*, 52(6), 584–591. <https://doi.org/10.1111/j.1365-2648.2005.03630.x>
- Equality and Human Right Commission. (2017). *Being disabled in Britain*.
- Erdfelder, E., Faul, F., & Buchner, A. (1996). GPOWER: A general power analysis program. *Behavior Research Methods, Instruments, and Computers*, 28(1), 1–11. <https://doi.org/10.3758/BF03203630>
- Etzioni, A. (1993). *The Spirit of Community: The Reinvention of American Society*. Touchstone.
[https://www.scirp.org/\(S\(i43dyn45teexjx455qlt3d2q\)\)/reference/ReferencesPapers.aspx?ReferenceID=1876478](https://www.scirp.org/(S(i43dyn45teexjx455qlt3d2q))/reference/ReferencesPapers.aspx?ReferenceID=1876478)
- European Union Agency for Fundamental Rights. (2017). *Second European union minorities and discrimination survey main results*.
<https://doi.org/10.2811/902610>
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39(2), 175–191.
<https://doi.org/10.3758/BF03193146>
- Field, A. (2017). *Discovering statistics using IBM SPSS statistics* (5th Edition). Sage.
- Fienberg, S. E. (2007a). Causal analysis involving logit and loglinear models. *The Analysis of Cross-Classified Categorical Data*, 120-139
https://doi.org/10.1007/978-0-387-72825-4_7
- Fienberg, S. E. (2007b). Selection of a model. *The Analysis of Cross-Classified Categorical Data*, 56-70. https://doi.org/10.1007/978-0-387-72825-4_4
- Freeman, G. H., & Halton, J. H. (1951). Note on exact treatment of contingency goodness of fit and other problem of significance. *Biometrika*, 38(1–2), 141–149. <https://doi.org/10.1093/biomet/38.1-2.141>
- Furnham, A., & Ofstein, A. (1997). Ethical ideology and the allocation of scarce

- medical resources. *British Journal of Medical Psychology*, 70(1), 51–63.
<https://doi.org/10.1111/j.2044-8341.1997.tb01885.x>
- Gannon, K. (2015). Evidence-based practice - the ethical dimension. In R. Tribe & J. Morrissey (Eds.), *Handbook of Professional and Ethical Practice for Psychologists, Counsellors and Psychotherapists*. Routledge .
<https://repository.uel.ac.uk/item/8576w>
- Garthwaite, K., & Bambra, C. (2017). “How the other half live”: Lay perspectives on health inequalities in an age of austerity. *Social Science and Medicine*, 187, 268–275. <https://doi.org/10.1016/j.socscimed.2017.05.021>
- Garthwaite, K., Smith, K. E., Bambra, C., & Pearce, J. (2016). Desperately seeking reductions in health inequalities: Perspectives of UK researchers on past, present and future directions in health inequalities research. *Sociology of Health and Illness*, 38(3), 459–478. <https://doi.org/10.1111/1467-9566.12374>
- Gergen, K. J. (1985). Social constructionist inquiry: Context and implications. In *The social construction of the person* (pp. 3-18). Springer.
- Gergen, M., & Gergen, K. (2003). Social construction: A reader. *Social Construction: A Reader*. <https://works.swarthmore.edu/fac-psychology/205>
- Gillies, V. (2005). Raising the ‘Meritocracy’ Parenting and the Individualization of Social Class. *Sociology*, 39(5), 835-853.
- Gkeredakis, E., Swan, J., Nicolini, D., & Scarbrough, H. (2011). *Rational judgement revisited: Practices of deliberation in healthcare funding decisions*.
<https://pdfs.semanticscholar.org/2c0e/a60111816888f1ab443171476b1a5656b244.pdf>
- Goldacre, B. (2013). *Bad pharma: How medicine is broken, and how we can fix it*. Fourth Estate.
- Graham, J., Haidt, J., & Nosek, B. A. (2009). Liberals and conservatives rely on different sets of moral foundations. *Journal of Personality and Social Psychology*, 96(5), 1029–1046. <https://doi.org/10.1037/a0015141>
- Graham, J., Nosek, B. A., Haidt, J., Iyer, R., Koleva, S., & Ditto, P. H. (2011). Mapping the moral domain. *Journal of Personality and Social Psychology*, 101(2), 366–385. <https://doi.org/10.1037/a0021847>
- Green, E. G. T., Sarrasin, O., Baur, R., & Fasel, N. (2016). From stigmatized

- immigrants to radical right voting: A multilevel study on the role of threat and contact. *Political Psychology*, 37(4), 465–480.
<https://doi.org/10.1111/pops.12290>
- Greene, J., & Haidt, J. (2002). How (and where) does moral judgment work? *Trends in cognitive sciences*, 6(12), 517-523.
- Greenhalgh, T. (2010). *How to read a paper: The basics of evidence-based medicine* (4th Edition). Wiley-Blackwell. <https://www.wiley.com/en-gb/How+to+Read+a+Paper%3A+The+Basics+of+Evidence+Based+Medicine%2C+4th+Edition-p-9781444390360>
- Greenhalgh, T., & Russell, J. (2009). Evidence-based policymaking: A critique. *Perspectives in Biology and Medicine*, 52(2), 304–318.
<https://doi.org/10.1353/pbm.0.0085>
- Grey, I. M., McClean, B., & Barnes-Holmes, D. (2002). Staff attributions about the causes of challenging behaviours: Effects of longitudinal training in multi-element behaviour support. *Journal of Learning Disabilities*, 6(3), 297–312.
<https://doi.org/10.1177/1469004702006003037>
- Grimm, P. (2010). Social desirability bias. In *Wiley International Encyclopedia of Marketing*. John Wiley & Sons, Ltd.
<https://doi.org/10.1002/9781444316568.wiem02057>
- Gunner, E., Chandan, S. K., Yahyouche, A., Paudyal, V., Marwick, S., Saunders, K., & Burwood, S. (2019). Provision and accessibility of primary healthcare services for people who are homeless: A qualitative study of patient perspectives in the UK. *British Journal of General Practice*, 69(685), E526–E536. <https://doi.org/10.3399/bjgp19X704633>
- Hagenaars, J. A. (2015). Methodological issues in categorical data analysis: Categorization, linearity, and response effects. *Methodology*, 11(4), 126–141. <https://doi.org/10.1027/1614-2241/a000102>
- Haidt, J., & Graham, J. (2007). When morality opposes justice: Conservatives have moral intuitions that Liberals may not recognize. *Social Justice Research*, 20(1), 98–116. <https://doi.org/10.1007/s11211-007-0034-z>
- Haidt, J., & Joseph, C. (2004). Intuitive ethics: How innately prepared intuitions generate culturally variable virtues. *Daedalus*, 55–66.
https://www.jstor.org/stable/20027945?seq=1#metadata_info_tab_contents
- Ham, C., & Robert, G. (2003). *Reasonable rationing : international experience of*

- priority setting in health care*. Open University Press.
- Hardin, G. (1968). The tragedy of the commons. In *Source: Science, New Series* (Vol. 162, Issue 3859).
https://pages.mtu.edu/~asmayer/rural_sustain/governance/Hardin_1968.pdf
- Harris, J. (1987). QALYfying the value of life. *Journal of Medical Ethics*, 13(3), 117–123. <https://doi.org/10.1136/jme.13.3.117>
- Harvey, D. (2005). *Spaces of neoliberalization: Towards a theory of uneven geographical development*. KTF.
- Hedge, C., Powell, G., & Sumner, P. (2018). The reliability paradox: Why robust cognitive tasks do not produce reliable individual differences. *Behavior Research Methods*, 50(3), 1166–1186. <https://doi.org/10.3758/s13428-017-0935-1>
- Hedges, L. V., & Cooper, H. M. (1994). *The Handbook of research synthesis*. Russell Sage Foundation. <https://books.google.co.uk/books?hl=en&lr=&id=p-aFAwAAQBAJ&oi=fnd&pg=PA231&dq=rosenthal+1994+effect+size&ots=TVxNUekLTI&sig=bppdqfr4XdJ4fyzECZbD1LQmsXg#v=onepage&q=rosenthal+1994+effect+size&f=false>
- Henson, R. K. (2001). Understanding internal consistency reliability estimates: A conceptual primer on coefficient alpha. *Measurement and Evaluation in Counseling and Development*, 34(3), 177–189.
<https://doi.org/10.1080/07481756.2002.12069034>
- Hibbert, M., Crenna-Jennings, W., Kirwan, P., Benton, L., Lut, I., Okala, S., Asboe, D., Jeffries, J., Kunda, C., Mbewe, R., Morris, S., Morton, J., Nelson, M., Thorley, L., Paterson, H., Ross, M., Reeves, I., Sharp, L., Sseruma, W., ... Delpech, V. (2018). The people living with HIV stigma survey UK 2015: HIV-related sexual rejection and other experiences of stigma and discrimination among gay and heterosexual men. *AIDS Care - Psychological and Socio-Medical Aspects of AIDS/HIV*, 30(9), 1189–1196.
<https://doi.org/10.1080/09540121.2018.1479027>
- Hirsh, J. B., Deyoung, C. G., Xu, X., & Peterson, J. B. (2010). *Compassionate liberals and polite conservatives: Associations of agreeableness with political ideology and moral values*. <https://doi.org/10.1177/0146167210366854>
- Holm, Sabin, Chinitz, Shalev, Galai, & Israeli. (1998). The second phase of priority setting. *BMJ (Clinical Research Ed.)*, 317(7164), 1000–1007.

- <http://www.ncbi.nlm.nih.gov/pubmed/9765174>
- Hooghe, M., Dassonneville, R., & Oser, J. (2019). Public opinion, turnout and social policy: A comparative analysis of policy congruence in European liberal democracies. *Political Studies*, 67(4), 992–1009.
<https://doi.org/10.1177/0032321718819077>
- Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277–1288.
<https://doi.org/10.1177/1049732305276687>
- Hubley, A. M., & Wagner, S. (2004). Using alternate forms of the multidimensional health locus of control scale: Caveat emptor. *Social Indicators Research*, 65(2), 167–186.
<https://doi.org/10.1023/A:1025809921592>
- Hughes, R. (1998). Considering the vignette technique and its application to a study of drug injecting and HIV risk and safer behaviour. *Sociology of Health and Illness*, 20(3), 381–400. <https://doi.org/10.1111/1467-9566.00107>
- Hughes, R., & Huby, M. (2002). The application of vignettes in social and nursing research. *Journal of Advanced Nursing*, 37(4), 382–386.
<https://doi.org/10.1046/j.1365-2648.2002.02100.x>
- Hughes, R., & Huby, M. (2004). The construction and interpretation of vignettes in social research. *Social Work and Social Sciences Review*, 11(1), 36–51.
<https://doi.org/10.1921/17466105.11.1.36>
- Hunter, K. M. (1996). Narrative, literature, and the clinical exercise of practical reason. *The Journal of Medicine and Philosophy*, 21(3), 303–320.
<http://www.ncbi.nlm.nih.gov/pubmed/8803811>
- Iacobucci, G. (2021). Healthcare leaders reject “damaging” denial that institutional racism exists. *BMJ (Clinical Research Ed.)*, 373, n911.
<https://doi.org/10.1136/bmj.n911>
- Iyer, R., Koleva, S., Graham, J., Ditto, P., & Haidt, J. (2012). Understanding libertarian morality: The psychological dispositions of self-identified libertarians. *PLoS ONE*, 7(8), e42366.
<https://doi.org/10.1371/journal.pone.0042366>
- JAN Trust. (2021, March 26). *Narratives blaming minorities for spreading Covid-19 reflects a wider pattern of scapegoating*.
<https://jantrust.org/blog/narratives-blaming-minorities-for-spreading-covid-19->

- are-not-new-instead-they-reflect-a-wider-pattern-of-scapegoating/
 Jöbges, S., Vinay, R., Luyckx, V. A., & Biller-Andorno, N. (2020).
 Recommendations on COVID-19 triage: International comparison and ethical
 analysis. *Bioethics*, 34(9), 948–959. <https://doi.org/10.1111/bioe.12805>
- Johnston, C., & Freeman, W. (1997). Attributions for child behavior in parents of
 children without behavior disorders and children with attention deficit-
 hyperactivity disorder. *Journal of Consulting and Clinical Psychology*, 65(4),
 636–645. <https://doi.org/10.1037/0022-006X.65.4.636>
- Jones, O. P., Lumley, P. J., Green, D. J. B., & Tomson, P. L. (2019). Enhanced
 NHS endodontic services in England: a postcode lottery? *British Dental
 Journal*, 226(11), 871–877. <https://doi.org/10.1038/s41415-019-0362-z>
- Kall, M., Kelly, C., Auzenberg, M., & Delpech, V. (2020). *Positive voices: The
 national survey of people living with HIV findings from the 2017 survey*.
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads
 /attachment_data/file/857922/PHE_positive_voices_report_2019.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/857922/PHE_positive_voices_report_2019.pdf)
- Kang, C., Farrington, R., & Tomkow, L. (2019). Access to primary health care for
 asylum seekers and refugees: A qualitative study of service user
 experiences in the UK. *British Journal of General Practice*, 69(685), E537–
 E545. <https://doi.org/10.3399/bjgp19X701309>
- Kerridge, I. (2010). Ethics and EBM: Acknowledging bias, accepting difference
 and embracing politics. In *Journal of Evaluation in Clinical Practice* (Vol. 16,
 Issue 2, pp. 365–373). J Eval Clin Pract. [https://doi.org/10.1111/j.1365-
 2753.2010.01412.x](https://doi.org/10.1111/j.1365-2753.2010.01412.x)
- Kesavayuth, D., Poyago-Theotoky, J., Tran, D. B., & Zikos, V. (2020). Locus of
 control, health and healthcare utilization. *Economic Modelling*, 86, 227–238.
<https://doi.org/10.1016/j.econmod.2019.06.014>
- Klein, R. (2013). *The new politics of the NHS (7th Edition)*. CRC Press.
<https://doi.org/10.1201/9780429088964>
- Kohlberg, L. (1976). Moral stages and moralization. In T. Lickona (Ed.), *Moral
 development and behavior: The cognitive-development approach*. (pp. 31–
 53). Holt, Rinehart, and Winston.
[https://www.scirp.org/\(S\(351jmbntvnsjt1aadkposzje\)\)/reference/ReferencesP
 apers.aspx?ReferenceID=2277263](https://www.scirp.org/(S(351jmbntvnsjt1aadkposzje))/reference/ReferencesPapers.aspx?ReferenceID=2277263)
- Kruskal, W. H. (1952). A nonparametric test for the several sample problem. *The*

- Annals of Mathematical Statistics*, 23 (4) 525-540.
- Kugler, M., Jost, J. T., & Noorbaloochi, S. (2014). Another look at Moral Foundations Theory: Do authoritarianism and social dominance orientation explain Liberal-Conservative differences in “moral” intuitions? *Social Justice Research*, 27(4), 413–431. <https://doi.org/10.1007/s11211-014-0223-5>
- LaBouff, J. P., Humphreys, M., & Shen, M. J. (2017). Religiosity and group-binding moral concerns. *Archiv für Religionspsychologie / Archive for the Psychology of Religion*, 39(3), 263–282.
- Lavrakas, P. (2012). Encyclopedia of survey research methods. In *Encyclopedia of Survey Research Methods*. Sage Publications, Inc. <https://doi.org/10.4135/9781412963947>
- Lee, J. W., Park, J. Y., & Lee, K. C. (2012). An exploratory study of the positive effect of anger on decision-making in business contexts. *Communications in Computer and Information Science*, 352 CCIS, 302–309. https://doi.org/10.1007/978-3-642-35603-2_45
- Lerner, J. S., Li, Y., Valdesolo, P., & Kassam, K. S. (2015). Emotion and decision making. *Annual Review of Psychology*, 66, 799–823. <https://doi.org/10.1146/annurev-psych-010213-115043>
- Lerner, M. J. (1980). The belief in a just world - A fundamental delusion. In *The Belief in a Just World*. Springer US. https://doi.org/10.1007/978-1-4899-0448-5_2
- Levesque, J.-F., Harris, M. F., & Russell, G. (2013). Patient-centred access to health care: conceptualising access at the interface of health systems and populations. *International Journal for Equity in Health*, 12(1), 18. <https://doi.org/10.1186/1475-9276-12-18>
- Leys, C., Ley, C., Klein, O., Bernard, P., & Licata, L. (2013). Detecting outliers: Do not use standard deviation around the mean, use absolute deviation around the median. *Journal of Experimental Social Psychology*, 49(4), 764–766. <https://doi.org/10.1016/j.jesp.2013.03.013>
- Lingard, L. (2009). What we see and don't see when we look at “competence”: Notes on a god term. In *Advances in Health Sciences Education* (Vol. 14, Issue 5, pp. 625–628). Adv Health Sci Educ Theory Pract. <https://doi.org/10.1007/s10459-009-9206-y>
- Linley, W. G., & Hughes, D. A. (2012). Societal views on nice, cancer drugs fund

- and value-based pricing criteria for prioritising medicines: A cross-sectional survey of 4118 adults in great britain. *Health Economics (United Kingdom)*, 22(8), 948–964. <https://doi.org/10.1002/hec.2872>
- Lundh, A., Krogsbøll, L. T., & Gøtzsche, P. C. (2011). Access to data in industry-sponsored trials. In *The Lancet* (Vol. 378, Issue 9808, pp. 1995–1996). Elsevier B.V. [https://doi.org/10.1016/S0140-6736\(11\)61871-0](https://doi.org/10.1016/S0140-6736(11)61871-0)
- Macintyre, S., Macdonald, L., & Ellaway, A. (2008). Do poorer people have poorer access to local resources and facilities? The distribution of local resources by area deprivation in Glasgow, Scotland. *Social Science and Medicine*, 67(6), 900–914. <https://doi.org/10.1016/j.socscimed.2008.05.029>
- Malone, & Rycroft-malone. (1998). Equity and rationing in the NHS: past to present. *Journal of Nursing Management*, 6(6), 325–332. <https://doi.org/10.1046/j.1365-2834.1998.00086.x>
- Mandal, J., Ponnambath, D. K., & Parija, S. C. (2016). Utilitarian and deontological ethics in medicine. *Tropical Parasitology*, 6(1), 5–7. <https://doi.org/10.4103/2229-5070.175024>
- Manstead, A. S. R. (2018). The psychology of social class: How socioeconomic status impacts thought, feelings, and behaviour. *British Journal of Social Psychology*, 57, 267–291. <https://doi.org/10.1111/bjso.12251>
- March, J. G. (2006). Rationality, foolishness, and adaptive intelligence. In *Strategic Management Journal* (Vol. 27, Issue 3, pp. 201–214). John Wiley & Sons, Ltd. <https://doi.org/10.1002/smj.515>
- Marmot, M., Allen, J., Boyce, T., Goldblatt, P., & Morrison, J. (2020). *Health equity in England: The Marmot review 10 years on*. <https://www.health.org.uk/publications/reports/the-marmot-review-10-years-on>
- Marmot, M., Allen, J., Goldblatt, P., Boyce, T., McNeish, D., Grady, M., & Geddes, I. (2010). *The Marmot review - Fair society, healthy lives*.
- Marton, G., Pizzoli, S. F. M., Vergani, L., Mazzocco, K., Monzani, D., Bailo, L., Pancani, L., & Pravettoni, G. (2021). Patients' health locus of control and preferences about the role that they want to play in the medical decision-making process. *Psychology, Health and Medicine*, 26(2), 260–266. <https://doi.org/10.1080/13548506.2020.1748211>
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*,

- 50(4), 370–396. <https://doi.org/10.1037/h0054346>
- Master, T. (2009). *The link between moral anger and social activism: an exploratory study* [Rutgers State university of New Jersey].
<https://rucore.libraries.rutgers.edu/rutgers-lib/26136/PDF/1/play/>
- Maybin, J., & Klein, R. (2012). *Thinking about rationing*. The King's Fund.
www.kingsfund.org.uk/publications
- McColl, E., Jacoby, A., Thomas, L., Soutter, J., Bamford, C., Steen, N., Thomas, R., Harvey, E., Garratt, A., & Bond, J. (2001). Design and use of questionnaires: A review of best practice applicable to surveys of health service staff and patients. In *Health Technology Assessment* (Vol. 5, Issue 31). National Co-ordinating Centre for HTA. <https://doi.org/10.3310/hta5310>
- McDermid, D. (2006). *The varieties of pragmatism*. Continuum.
<https://www.bloomsbury.com/uk/the-varieties-of-pragmatism-9781847141309/>
- McEvoy, P., & Richards, D. (2006). A critical realist rationale for using a combination of quantitative and qualitative methods. *Journal of Research in Nursing*, 11(1), 66–78. <https://doi.org/10.1177/1744987106060192>
- Mcgregor, S. (2001). Neoliberalism and health care. In *International Journal of Consumer Studies* (Vol. 25). <https://doi.org/10.1111/j.1470-6431.2001.00183.x>
- McHugh, M. L. (2012). The Chi-square test of independence. *Biochemia Medica*, 23(2), 143–149. <https://doi.org/10.11613/BM.2013.018>
- McHugh, N., Baker, R. M., Mason, H., Williamson, L., Van Exel, J., Deogaonkar, R., Collins, M., & Donaldson, C. (2015). Extending life for people with a terminal illness: A moral right and an expensive death: Exploring societal perspectives. *BMC Medical Ethics*, 16(1), 14. <https://doi.org/10.1186/s12910-015-0008-x>
- Meadowcroft, J. (2008). Patients, politics, and power: Government failure and the politicization of U.K. health care. In *Journal of Medicine and Philosophy* (Vol. 33, Issue 5, pp. 427–444). <https://doi.org/10.1093/jmp/jhn022>
- Miles, A. (2009). On a medicine of the whole person: Away from scientific reductionism and towards the embrace of the complex in clinical practice. *Journal of Evaluation in Clinical Practice*, 15(6), 941–949.
<https://doi.org/10.1111/j.1365-2753.2009.01354.x>

- Molenberghs, P., & Louis, W. R. (2018). Insights from fMRI studies into ingroup bias. In *Frontiers in Psychology* (Vol. 9, Issue OCT, p. 1868). Frontiers Media S.A. <https://doi.org/10.3389/fpsyg.2018.01868>
- Moncrieff, J. (2013). Psychiatric medication. In J. Cromby, D. Harper, & P. Reavey (Eds.), *Psychology, Mental Health and Distress*. Red Glove Press. <https://www.macmillanihe.com/page/detail/Psychology-Mental-Health-and-Distress/?K=9780230549562>
- Monitor. (2013). *Closing the NHS Funding Gap: How to get better value health care for patients*. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/284044/ClosingTheGap091013.pdf
- Moralfoundation.org. (2013). *Moral Foundations Theory*. <https://moralfoundations.org/>
- Morgan, D. L. (2014). Pragmatism as a paradigm for social research. *Qualitative Inquiry*, 20(8), 1045–1053. <https://doi.org/10.1177/1077800413513733>
- Murray, S., & Buller, A. M. (2007). Exclusion on grounds of language ability - A reporting gap in health services research? *Journal of Health Services Research and Policy*, 12(4), 205–208. <https://doi.org/10.1258/135581907782101642>
- NHS. (2015). *The NHS Constitution – the NHS belongs to us all*. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/480482/NHS_Constitution_WEB.pdf
- NHS. (2021). *Moving to England from outside the European Economic Area (EEA)*. <https://www.nhs.uk/nhs-services/visiting-or-moving-to-england/moving-to-england-from-outside-the-european-economic-area-eea/>
- NHS. (2021). *The NHS constitution for England, Department of Health & Social Care*. <https://www.gov.uk/government/publications/the-nhs-constitution-for-england/the-nhs-constitution-for-england>
- NHS Blood Donation. (2021). *Men who have sex with men*. NHS Blood Donation. <https://www.blood.co.uk/who-can-give-blood/men-who-have-sex-with-men/>
- Nickel, J. (2007). *Making sense of human rights* (2nd ed.). Georgetown University Press. <https://www.wiley.com/en-us/Making+Sense+of+Human+Rights%2C+2nd+Edition-p-9781405145350>
- Nimon, K., Zientek, L. R., & Henson, R. K. (2012). The assumption of a reliable

- instrument and other pitfalls to avoid when considering the reliability of data. In *Frontiers in Psychology*, 3. Frontiers.
<https://doi.org/10.3389/fpsyg.2012.00102>
- Nord, E., Enge, A. U., & Gundersen, V. (2010). QALYs: Is the value of treatment proportional to the size of the health gain? *Health Economics*, 19(5), 596–607. <https://doi.org/10.1002/hec.1497>
- Nussbaum, M. C. (2001). *Upheavals of thought : the intelligence of emotions*. Cambridge University Press.
- Osborne, J. W. (2017). Best practices in logistic regression. In *Best Practices in Logistic Regression*. SAGE Publications, Ltd.
<https://doi.org/10.4135/9781483399041>
- Owen-Smith, A., Coast, J., & Donovan, J. (2009). “I can see where they’re coming from, but when you’re on the end of it ... you just want to get the money and the drug.”: Explaining reactions to explicit healthcare rationing. *Social Science and Medicine*, 68(11), 1935–1942.
<https://doi.org/10.1016/j.socscimed.2009.03.024>
- Owen-Smith, A., Coast, J., & Donovan, J. L. (2018). Self-responsibility, rationing and treatment decision making – managing moral narratives alongside fiscal reality in the obesity surgery clinic. *Health Expectations*, 21(3), 606–614.
<https://doi.org/10.1111/hex.12651>
- Owen-Smith, A., Donovan, J., & Coast, J. (2015). How clinical rationing works in practice: A case study of morbid obesity surgery. *Social Science and Medicine*, 147, 288–295. <https://doi.org/10.1016/j.socscimed.2015.11.008>
- Parmenter, J. G., Galliher, R. V., & Maughan, A. D. A. (2020). An exploration of LGBTQ+ community members’ positive perceptions of LGBTQ+ culture. *Counseling Psychologist*, 48(7), 1016–1047.
<https://doi.org/10.1177/0011000020933188>
- Patel, N. (2019). Human rights-based approach to applied psychology. *European Psychologist*, 24(2), 113–124. <https://doi.org/10.1027/1016-9040/a000371>
- Paterson, J. L., Brown, R., & Walters, M. A. (2019). Feeling for and as a group member: Understanding LGBT victimization via group-based empathy and intergroup emotions. *British Journal of Social Psychology*, 58(1), 211–224.
<https://doi.org/10.1111/bjso.12269>
- Peirce, C. S. (1905). Issues of pragmatism. *The Monist*, 15(4), 481-499.

- Pharies, D. A. (1985). *Charles S. Peirce and the linguistic sign*. John Benjamine Publishers.
- Piaget, J. (1965). *The moral judgment of the child*. Free Press.
<https://psycnet.apa.org/record/1965-11992-000>
- Powers, M., & Faden, R. (2008). *Social justice - The moral foundations of public health and health policy*. Oxford University Press.
<https://global.oup.com/academic/product/social-justice-9780195375138?cc=pt&lang=en&>
- Rawlins, M. D., & Culyer, A. J. (2004). National institute for clinical excellence and its value judgments. In *British Medical Journal* (Vol. 329, Issue 7459, pp. 224–227). BMJ Publishing Group. <https://doi.org/10.1136/bmj.329.7459.224>
- Riley, M. (2020). Life & Times : Health inequality and COVID-19. In *British Journal of General Practice* (Vol. 70, Issue 697, p. 397). Royal College of General Practitioners. <https://doi.org/10.3399/bjgp20X711965>
- Rimmer, A. (2020). Covid-19: Tackling health inequalities is more urgent than ever, says new alliance. *BMJ (Clinical Research Ed.)*, 371, m4134.
<https://doi.org/10.1136/bmj.m4134>
- Rocque, R., & Leanza, Y. (2015). A systematic review of patients' experiences in communicating with primary care physicians: Intercultural encounters and a balance between vulnerability and integrity. *PLoS ONE*, 10(10).
<https://doi.org/10.1371/journal.pone.0139577>
- Rorty, R., & Putnam, H. (1992). Putnam on truth: Representation and reality. *Philosophy and Phenomenological Research*, 52(2), 415.
<https://doi.org/10.2307/2107946>
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. In *Psychological monographs* (Vol. 80, Issue 1, pp. 1–28).
<https://doi.org/10.1037/h0092976>
- Rotter, Julian B. (1990). Internal versus external control of reinforcement: A case history of a variable. *American Psychologist*, 45(4), 489–493.
<https://doi.org/10.1037/0003-066X.45.4.489>
- Russell, J. (2013). *The rationality of rationing: a rhetorical policy analysis of deliberations about resource allocation in the NHS*. University of Oxford.
- Russell, J., & Greenhalgh, T. (2013). Being “rational” and being “human”: How National Health Service rationing decisions are constructed as rational by

- resource allocation panels. *Health*, 18(5), 441–457.
<https://doi.org/10.1177/1363459313507586>
- Russell, J., Greenhalgh, T., Byrne, E., & McDonnell, J. (2008). Recognizing rhetoric in health care policy analysis. In *Journal of Health Services Research and Policy* (Vol. 13, Issue 1, pp. 40–46). J Health Serv Res Policy.
<https://doi.org/10.1258/jhsrp.2007.006029>
- Russell, J., Greenhalgh, T., Lewis, H., Mackenzie, I., Maskrey, N., Montgomery, J., & O'Donnell, C. (2013). Addressing the “postcode lottery” in local resource allocation decisions: A framework for clinical commissioning groups. *Journal of the Royal Society of Medicine*, 106(4), 120–123.
<https://doi.org/10.1177/0141076813479192>
- Sanderson, I. (2006). Complexity, “practical rationality” and evidence-based policy making. *Policy & Politics*, 34(1), 115–132.
<https://doi.org/10.1332/030557306775212188>
- Sarafino, E. P. (2006). *Health psychology: Biopsychosocial interactions* (5th Edition). Wiley. <https://bcs.wiley.com/he-bcs/Books?action=index&itemId=0471691003&itemTypeId=BKS&bcsId=2348>
- Scanlon, T. M. (2000). *What we owe to each other*. Belknap Press of Harvard University Press.
<https://www.hup.harvard.edu/catalog.php?isbn=9780674004238>
- Schnall, S., Haidt, J., Clore, G. L., & Jordan, A. H. (2008). Disgust as embodied moral judgment. *Personality & Social Psychology Bulletin*, 34(8), 1096–1109.
<https://doi.org/10.1177/0146167208317771>
- Schweizer, K., & Döbrich, P. (2003). Self-reported health, appraisal, coping, and stress in teachers. In *Psychology Science* (Vol. 45, Issue 1).
- Seifert, A., Cotten, S. R., & Xie, B. (2021). A double burden of exclusion: Digital and social exclusion of older adults in times of COVID-19. *The Journals of Gerontology. Series B, Psychological Sciences and Social Sciences*, 76(3), e99–e103. <https://doi.org/10.1093/geronb/gbaa098>
- Selvin, S. (1987). Two issues concerning the analysis of grouped data. *European Journal of Epidemiology*, 3(3), 284–287. <https://doi.org/10.1007/BF00149737>
- Shaw, C., & Proctor, G. (2005). Women at the margins: A critique of the diagnosis of Borderline Personality Disorder. *Feminism & Psychology*, 15(4),

483–490.

https://www.researchgate.net/profile/Gillian_Proctor/publication/247749672_I_Women_at_the_Margins_A_Critique_of_the_Diagnosis_of_Borderline_Personality_Disorder/links/57a05c2808aece1c72174410.pdf

- Shenhav, Y. (2005). The historical and epistemological foundations of organization theory: Fusing sociological theory with engineering discourse. In *The Oxford handbook of organization theory* (pp. 1–672). Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780199275250.003.0007>
- Shweder, R. A., Haidt, J., Horton, R., & Joseph, C. (2008). The cultural psychology of the emotions: Ancient and renewed. - PsycNET. In M. Lewis, J. M. Haviland-Jone, & L. F. Barrett (Eds.), *Handbook of Emotions* (pp. 409–427). The Guildford Press. <https://psycnet.apa.org/record/2008-07784-025>
- Simon, H. A. (1957). Models of man: Social and rational. *The American Catholic Sociological Review*, 18(3), 236. <https://doi.org/10.2307/3708691>
- Smith, K. M., & Haeney, J. A. (2020). Postcode lottery? Do clinical commissioning groups differ in their funding of prominent ear correction surgery. *JPRAS Open*, 23, 32–36. <https://doi.org/10.1016/j.jpra.2019.10.005>
- Søreide, K., Hallet, J., Matthews, J. B., Schnitzbauer, A. A., Line, P. D., Lai, P. B. S., Otero, J., Callegaro, D., Warner, S. G., Baxter, N. N., Teh, C. S. C., Ng-Kamstra, J., Meara, J. G., Hagander, L., & Lorenzon, L. (2020). Immediate and long-term impact of the COVID-19 pandemic on delivery of surgical services. In *British Journal of Surgery* (Vol. 107, Issue 10, pp. 1250–1261). John Wiley and Sons Ltd. <https://doi.org/10.1002/bjs.11670>
- Stainton Rogers, R. (1995). Q methodology. In J. a. Smith, R. Harré, & L. Van Langenhofe (Eds.), *Rethinking methods in psychology* (pp. 178–192). CA: Sage. <https://qmethod.org/1995/01/09/rogers-1995-q-methodology/>
- Staniforth, R., & Such, E. (2019). Public health practitioners' perspectives of migrant health in an English region. *Public Health*, 175, 79–86. <https://doi.org/10.1016/j.puhe.2019.06.019>
- Stayt, L. C. (2009). Death, empathy and self preservation: The emotional labour of caring for families of the critically ill in adult intensive care. *Journal of Clinical Nursing*, 18(9), 1267–1275. <https://doi.org/10.1111/j.1365-2702.2008.02712.x>
- Sweetser, K. D. (2014). Partisan personality. *American Behavioral Scientist*,

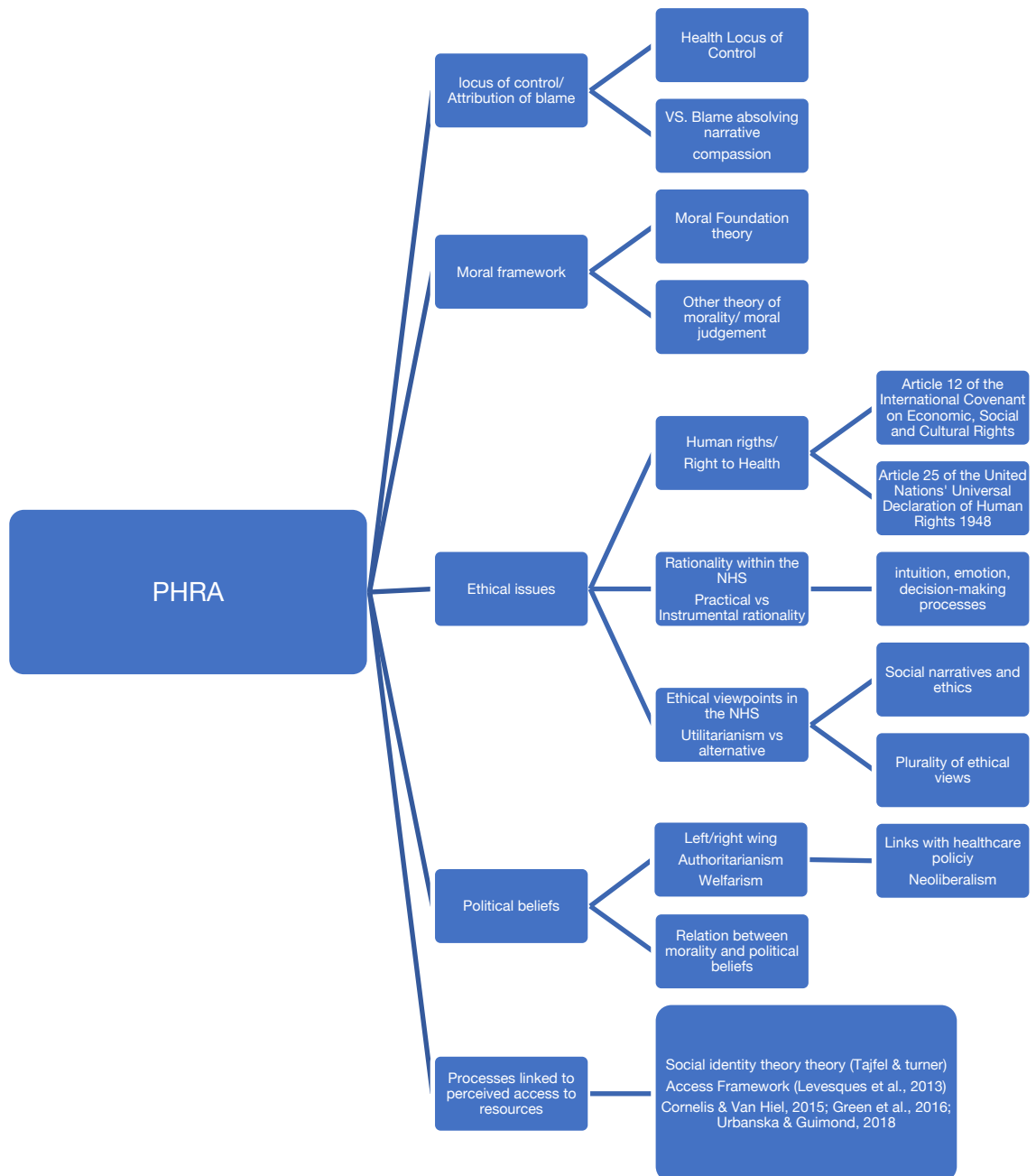
- 58(9), 1183–1194. <https://doi.org/10.1177/0002764213506215>
- Tajfel, H., Billig, M. G., Bundy, R. P., & Flament, C. (1971). Social categorization and intergroup behaviour. *European Journal of Social Psychology*, 1(2), 149–178. <https://doi.org/10.1002/ejsp.2420010202>
- Tajfel, H., & Turner, J. C. (1986). The Social Identity Theory of intergroup behavior. In S. Worchel & W. G. Austin (Eds.), *Psychology of Intergroup Relation* (pp. 7–24). Hall Publisher. <https://doi.org/10.4324/9780203505984-16>
- The British Psychological Society. (2013). *Ethics guidelines for internet-mediated research*. www.bps.org.uk/publications/policy-and-guidelines/research-guidelines-policy-documents/research-guidelines-poli
- The Health Foundation. (2018a). *Cost pressures on the NHS will only grow*. <https://www.health.org.uk/news-and-comment/news/cost-pressures-on-the-nhs-will-only-grow-it-needs-a-long-term-funding-solution-and-that-is>
- The Health Foundation. (2018b). *NHS at 70: Does the NHS need more money and how could we pay for it? | The Health Foundation*. <https://www.health.org.uk/publications/nhs-at-70-does-the-nhs-need-more-money-and-how-could-we-pay-for-it>
- Theodossiou, I., & Zangelidis, A. (2009). The social gradient in health: The effect of absolute income and subjective social status assessment on the individual's health in Europe. *Economics and Human Biology*, 7(2), 229–237. <https://doi.org/10.1016/j.ehb.2009.05.001>
- Tingle, J. (2020). Is patient safety in the NHS in England a postcode lottery? In *British Journal of Nursing* (Vol. 29, Issue 6, pp. 378–379). MA Healthcare Ltd. <https://doi.org/10.12968/bjon.2020.29.6.378>
- Topriceanu, C. C., Wong, A., Moon, J. C., Hughes, A. D., Bann, D., Chaturvedi, N., Patalay, P., Conti, G., & Captur, G. (2020). Inequality in access to health and care services during lockdown – Findings from the COVID-19 survey in five UK national longitudinal studies. *MedRxiv*, 2020.09.12.20191973. <https://doi.org/10.1101/2020.09.12.20191973>
- Townley, B. (2008). *Reason's neglect: rationality and organizing*. Oxford University Press.
- Turiel, E. (1985). *The development of social knowledge: Morality and convention*. Cambridge University Press. <https://philpapers.org/rec/TURTD0>

- Tukey, J. W. (1977). *Exploratory data analysis* (Vol. 2, pp. 131-160).
- Turnbull-Dugarte, S. J. (2020). The European lavender vote: Sexuality, ideology and vote choice in Western Europe. *European Journal of Political Research*, 59(3), 517–537. <https://doi.org/10.1111/1475-6765.12366>
- Tyler, I. (2013). The riots of the underclass: Stigmatisation, mediation and the government of poverty and disadvantage in neoliberal Britain. *Sociological Research Online*, 18(4). <https://doi.org/10.5153/sro.3157>
- Universal Declaration of Human Rights*. (1948) *Testimony of United Nations*. <https://www.un.org/en/about-us/universal-declaration-of-human-rights>
- United Nations. (1966). International covenant on economic, social and cultural rights. *United Nations Treaty Series*, 993(3). https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-3&chapter=4
- Urbanska, K., & Guimond, S. (2018). Swaying to the extreme: group relative deprivation predicts voting for an Extreme Right party in the French presidential election. *International Review of Social Psychology*, 31(1). <https://doi.org/10.5334/irsp.201>
- van Exel, J., Baker, R., Mason, H., Donaldson, C., & Brouwer, W. (2015). Public views on principles for health care priority setting: Findings of a European cross-country study using Q methodology. *Social Science and Medicine*, 126, 128–137. <https://doi.org/10.1016/j.socscimed.2014.12.023>
- Van Hecke, T. (2012). Power study of anova versus Kruskal-Wallis test. *Journal of Statistics and Management Systems*, 15(2–3), 241–247. <https://doi.org/10.1080/09720510.2012.10701623>
- Vote Leave. (2016). *Briefing: The EU is a threat to the NHS* . http://www.voteleavetakecontrol.org/briefing_health.html
- Wacquant, L. (2008). *Urban outcasts: A comparative sociology of advanced marginality*. Polity.
- Waldron, B., Benson, C., O’Connell, A., Byrne, P., Dooley, B., & Burke, T. (2010). Health locus of control and attributions of cause and blame in adjustment to spinal cord injury. *Spinal Cord*, 48(8), 598–602. <https://doi.org/10.1038/sc.2009.182>
- Wallston, K. A. (1993). *MHLC Scales - Frequently Asked Questions*. Vanderbilt School of Nursing. <https://nursing.vanderbilt.edu/projects/wallstonk/faq.php>

- Wallston, K. A. (2005). The validity of the Multidimensional Health Locus of Control scales. In *Journal of Health Psychology* (Vol. 10, Issue 5, pp. 623–631). Sage Publications/Sage CA: Thousand Oaks, CA.
<https://doi.org/10.1177/1359105305055304>
- Wallston, K. A., Wallston, B. S., & DeVellis, R. (1978). Development of the Multidimensional Health Locus of Control (MHLC) scales. *Health Education & Behavior*, 6(1), 160–170. <https://doi.org/10.1177/109019817800600107>
- White, S. (2009). Fabled uncertainty in social work: A coda to spafford et al. *Journal of Social Work*, 9(2), 222–235.
<https://doi.org/10.1177/1468017308101824>
- Whitehead, S. J., & Ali, S. (2010). Health outcomes in economic evaluation: The QALY and utilities. In *British Medical Bulletin* (Vol. 96, Issue 1, pp. 5–21). Oxford Academic. <https://doi.org/10.1093/bmb/ldq033>
- Wilkinson, R. G., & Pickett, K. E. (2017). The enemy between us: The psychological and social costs of inequality. *European Journal of Social Psychology*, 47(1), 11–24. <https://doi.org/10.1002/ejsp.2275>
- Williams, A. J., Henley, W., & Frank, J. (2018). Impact of abolishing prescription fees in Scotland on hospital admissions and prescribed medicines: An interrupted time series evaluation. *BMJ Open*, 8(12), 21318.
<https://doi.org/10.1136/bmjopen-2017-021318>
- World Health Organisation. (2013, March 7). *Social determinants of health: Key concepts*. <https://www.who.int/news-room/q-a-detail/social-determinants-of-health-key-concepts>
- Yalçındağ, B., Özkan, T., Cesur, S., Yılmaz, O., Tepe, B., Piyale, Z. E., Biten, A. F., & Sunar, D. (2019). An Investigation of Moral Foundations Theory in Turkey using different measures. *Current Psychology*, 38(2), 440–457.
<https://doi.org/10.1007/s12144-017-9618-4>
- Zembylas, M. (2007). Mobilizing anger for social justice: The politicization of the emotions in education. *Teaching Education*, 18(1), 15–28.
<https://doi.org/10.1080/10476210601151516>

6. APPENDICES

6.1. Appendix A – Mind map of the Literature



6.2. Appendix B – Search Strategy

An initial selection of papers provided by supervisors allowed for selecting relevant key terms and an initial snowballing literature search. Following this, search terms and limiters were used in databases in July 2020 and reviewed for new material in February 2021. The following database were used: Psycharticles, Psycinfo, CINAHL Plus via EBSCO and Scopus. Open-source repository such as Researchgate and Academia were also explored. All titles and abstracts were checked against the guiding questions.

6.2.1. Literature Review One: PHRA and Ethical view points for allocation of healthcare resources in the UK - Search Strategy

The key terms (ethics AND healthcare resources allocations AND UK OR Britain OR England OR Wales OR Scotland OR Northern Ireland) were entered and led to 22 studies after selection of UK & Ireland as geographical area. After thorough abstract reading, studies (3) that offered insight on ethical viewpoints for PHRA as a decisional factor were identified. Two additional studies were discovered through snowballing reading. Specific methodology used in the study was not a criterion for selection.

Inclusion criteria:

- Studies that included references to PHRA based on ethical frameworks
- Studies that did the above and included UK participants and since 1999

Exclusion criteria:

- Studies that were focussed on comparisons between specific medical treatments
- Studies that covered areas included in the narrative introduction and were redundant
- Studies that did not involve UK participants
- Studies that included data pre-dating 1999 (NICE creation) as their context was thought to be too different.

6.2.2. Literature Review Two: Preferences and systems for healthcare resources allocation in the UK – Search Strategy

Search terms (health care AND resources AND allocation AND UK OR Britain OR England OR Wales OR Scotland OR Northern Ireland AND factors OR causes OR influences) were entered and after selection of UK & Ireland as geographical area and major headings (cost benefit analysis, attitude to health, mental health, quality of healthcare, public health, health personnel, attitude of healthcare personnel, decision making, health resources allocation, resource allocation and covid 19), 54 papers were reviewed for relevance. Specific methodology was not a criterion for selection.

Inclusion criteria:

- Studies that included some reference to PHRA based on personal/demographic factors
- Studies that did the above and included UK participants and since 1999

Exclusion criteria:

- Studies that were focussed on comparisons on specific medical treatments
- Studies that included only discussion about 'evidence' were removed (it is discussed elsewhere in the thesis),
- studies that discussed ones that focussed on treatments exclusively (e.g. what treatment to use for a specific disease)
- Studies that were based on economics exclusively
- Studies that did not involve UK participants
- Studies that included data pre-dating 1999 (NICE creation) as their context was thought to be too different.

After abstract reading, five articles were chosen for this review because they directly addressed the research questions. An additional three studies were included following a snowballing search.

6.3. Appendix C – Ethics Application and Approval

UNIVERSITY OF EAST LONDON
School of Psychology

APPLICATION FOR RESEARCH ETHICS APPROVAL FOR RESEARCH INVOLVING HUMAN PARTICIPANTS

(Updated October 2019)

FOR BSc RESEARCH FOR MSc/MA RESEARCH FOR PROFESSIONAL DOCTORATE RESEARCH IN CLINICAL, COUNSELLING & EDUCATIONAL PSYCHOLOGY

1. Completing the application

1.1 Before completing this application please familiarise yourself with the British Psychological Society's Code of Ethics and Conduct (2018) and the UEL Code of Practice for Research Ethics (2015-16). Please tick to confirm that you have read and understood these codes:

1.2 Email your supervisor the completed application and all attachments as ONE WORD DOCUMENT. Your supervisor will then look over your application.

1.3 When your application demonstrates sound ethical protocol, your supervisor will submit it for review. By submitting the application, the supervisor is confirming that they have reviewed all parts of this application, and consider it of sufficient quality for submission to the SREC committee for review. It is the responsibility of students to check that the supervisor has checked the application and sent it for review.

1.4 Your supervisor will let you know the outcome of your application. Recruitment and data collection must NOT commence until your ethics application has been approved, along with other research ethics approvals that may be necessary (see section 8).

1.5 Please tick to confirm that the following appendices have been completed. Note: templates for these are included at the end of the form.

- The participant invitation letter
- The participant consent form
- The participant debrief letter

1.6 The following attachments should be included if appropriate. In each case, please tick to either confirm that you have included the relevant attachment, or confirm that it is not required for this application.

- A participant advert, i.e., any text (e.g., email) or document (e.g., poster) designed to recruit potential participants.

Included or

Not required (because no participation adverts will be used)

- A general risk assessment form for research conducted off campus (see section 6).

Included or

Not required (because the research takes place solely on campus or online)

- A country-specific risk assessment form for research conducted abroad (see section 6).

Included or

Not required (because the researcher will be based solely in the UK)

- A Disclosure and Barring Service (DBS) certificate (see section 7).

Included or

Not required (because the research does not involve children aged 16 or under or vulnerable adults)

- Ethical clearance or permission from an external organisation (see section 8).

Included or

Not required (because no external organisations are involved in the research)

- Original and/or pre-existing questionnaire(s) and test(s) you intend to use.

Included or

Not required (because you are not using pre-existing questionnaires or tests)

- Interview questions for qualitative studies.

Included or

Not required (because you are not conducting qualitative interviews)

- Visual material(s) you intend showing participants.

Included or

Not required (because you are not using any visual materials)

2. Your details

2.1 Your name: Oona Marie McEwan

2.2 Your supervisor's name: Dr Trishna Patel

2.3 Title of your program: Professional Doctorate in Clinical Psychology

2.4 UEL assignment submission date (stating both the initial date and the resit date):
May 2021

3. Your research

Please give as much detail as necessary for a reviewer to be able to fully understand the nature and details of your proposed research.

3.1 The title of your study:

'Moral Values, Perceived Access to Care and Preferences for Healthcare Resource Allocation'

3.2 Your research question:

Background information:

In a financially strained National Health Service (NHS), the need for rationing healthcare resources has led to a range of processes around complex decision making (NHS, 2015). The pandemic COVID-19 has brought an additional burden to the healthcare system, and rationing is more than ever at the forefront of the health policy debate (Coggon & Regmi, 2020). Rationality is seen as key in the implemented procedures, yet its definition is subjective and complex (Russell & Greenhalgh, 2014). It is argued that emotions and internal processes may interact with rationality and therefore impact decision making (Barbalet, 2001). If rationality is understood as subject to emotion, it is possible that attitudes and preferences for the allocation of resources infiltrate decisions about access to services or interventions (Russell & Greenhalgh, 2014).

In terms of rationing itself, most of the literature covers ethical and philosophical theories on how and why these processes are needed at macro level (e.g. Bentham and Mill writings during the 19th Century or more contemporarily Anand & Wailoo, 1999; Powers & Fadden, 2008). How they operate has also been investigated (Russell & Greenhalgh, 2014). More specific research has gathered information on who the public think should

make decisions (e.g. Wailoo & Anand, 2005), what patients' properties were prioritised by individuals (e.g. Neuberger et al., 1998) or individuals' reactions to rationing's decisions, for example, if rationing is about the participants themselves (e.g. Owen-Jones, Coast & Donovan, 2009). Some studies have looked at how rationing has worked logistically within services (in an Obesity service setting, for example; Owen-Jones, Coast & Donovan, 2015). Most of these studies have looked at participants' choices only rather than their personal characteristics. Only one study was identified as making explicit links between healthcare resources rationing and the participants' own characteristics (Furnham & Ofstein, 1997). Its scope was much smaller with the healthcare dilemma including only one situation (kidney failure) and factors investigated only including ethics position (relativism vs ideologism) and demographics (sex, year of birth, number of years of formal schooling, university degree, marital status, number of children, occupation, degree of contact with the terminally ill and degree of religious persuasion). It was also 23 years ago, with a different political context.

This present project has been able to use a wider range of studies, often recent, and therefore to identify additional potential interacting factors. These included studies that have found that negative attitudes from healthcare workers towards stigmatised group led to poor care. For example, it has been observed that those who believe that patients are responsible for their illnesses are less likely to have positive attitudes towards them (Cobb & de Chabert, 2002) and that stigma associated with perceived responsibility for illness is pervasive amongst the public (Marlow, Waller, & Wardle, 2010) as well as healthcare professionals (Puhl & Heuer, 2009, 2010). Such attitudes are essential as they may impact people who have the power to decide how rationing is operated, especially when public opinion impact healthcare policy for political gain (Caplan, 2007, Meadowcroft, 2008).

Moral values are also thought to be key in the way people make healthcare distribution decisions. For example, Antiel and colleagues (2013) found that moral values were a predictor for clinicians' preferences when it comes to theoretical healthcare rationing. Furthermore, political leaning (Walker & Egede, 2016) and demographics (Furnham, 1997) also appeared relevant. Walker and Egede (2016) found that in the US, doctors who were more liberal were less likely to withhold beneficial interventions based on the cost implications.

Finally, literature shows that access to healthcare is a crucial social factor in people's life. Indeed, different locations and social groups will experience disparity in the way they can access healthcare (Levesques et al. 2013). It is hypothesised here that this may mitigate the way people wish resources to be allocated. This, added to the argument that there is a level of subjectivity in rationing itself (Russell & Greenhalgh, 2014), suggests that a study investigating people's personal features (moral foundations, health locus of control, demographics, political leaning, access to healthcare) as well as their preferences for the allocation of healthcare resources may shed some light on a range of issues (including specific groups likely to receive and to allocate fewer resources, and potential factors in this discrimination process). No study to date has combined such factors and preference options.

Study aims:

This study aims to understand how a range of demographics, personal factors (including political leaning (Walker & Egede, 2016) and perceived access to healthcare (Levesque et al., 2013)), moral values (Graham et al., 2011), and health locus of control (Rotter, 1966, Wallston 1981) interact and predict healthcare resource allocation preferences. Material used to measure these concepts are available in Appenix E to I and described in the material section.

Research questions:

1. Are the following variables significantly associated with levels of endorsement for each of the healthcare resources allocation preferences (1: vulnerability-based; 2: consequence-based; 3: contribution-based; 4: causality-based):
 - a. Demographics
 - b. Political leaning
 - c. Moral foundations
 - d. Health locus of control
 - e. Perceived access to healthcare
2. Which individual demographic factors best predict different levels of endorsement for each of the healthcare resource allocation preferences (1: vulnerability-based; 2: consequence-based; 3: contribution-based; 4: causality-based)?
3. What sort of political leaning best predict different levels of endorsement for each of the resource allocation preferences (1: vulnerability-based; 2: consequence-based; 3: contribution-based; 4: causality-based)?
4. Which moral foundations best predict different levels of endorsement for each of the resource allocation preferences (1: vulnerability-based; 2: consequence-based; 3: contribution-based; 4: causality-based)?
5. Which health locus of control typologies best predict different levels of endorsement for each of the resource allocation preferences (1: vulnerability-based; 2: consequence-based; 3: contribution-based; 4: causality-based)?
6. Do perceived access to healthcare resources act as a moderator for relationships 'a' to 'e'?
7. RQs 2 to 5 could be rephrased like this:

Which factors and variables best predict different levels of endorsement for each of the resource allocation preferences (1: vulnerability-based; 2: consequence-based; 3: contribution-based; 4: causality-based)?

- a. Demographics
- b. Political leaning
- c. Moral foundations
- d. Health locus of control
- e. Levels of perceived access to healthcare

3.3 Design of the research:

A pragmatic epistemological stance will be adopted. A cross sectional, quantitative approach will be used. Attitudes will be examined through a range of quantitative measures/questionnaires, vignettes and open-ended comment boxes to enable participants to share additional information. Data will be collected via an online survey using Qualtrics. An adult sample (aged 18 +) of individuals who have lived in Britain for three years or more will be recruited (so that participants have had sufficient time to experience the way the NHS operates).

Based on sample size (detailed in 3.5), questionnaire and vignette data will be analysed using a range of statistical tests (see section 3.8). Open ended comment boxes will be analysed using content analysis.

3.4 Participants:

Inclusion criteria for participants:

- Proficiency in English as study materials will be presented in English
- UK residence for over three years (therefore increasingly likelihood of experience of the British healthcare system).
- Age 18 or over.

3.5 Recruitment:

An opportunity sample will be recruited. Cohen and Cohen (1975) suggest a minimum of 10 participants per IV is appropriate for regression equations using six or more predictors (here $39 \times 10 = 390$). Other calculations such as Green 1991; Tabachnick & Fidell, 2007) led to similar numbers. A higher number of participants will lead to better power and will be sought. Participants will be recruited online via social media websites such as Facebook, Twitter, LinkedIn, Instagram and email platforms through the advert (Appendix D). This will include the link to the Qualtrics survey.

Interested respondents will be able to access the participant information sheet via the study link. If participants have any questions, they will be able to contact the researcher before consenting to take part in the study. Participants will not be able to continue with the survey unless they provide electronic consent (ticking a box to a list of statements). Completion of the survey will be taken as further consent to use data. Upon completion of the survey, participants will be presented with a debrief sheet and the contact details of the researcher if participants have further questions. Participants will have three weeks from the date of completion to withdraw data, this will be communicated on the information sheet and debrief sheet. Participants will be offered the opportunity to participate to a draw to win 4 x £25. They will be informed of that on the advert and the participation information letter will state how they can take part.

3.6 Measures, materials or equipment:

- 1.1. Access to SPSS and MPlus software
- 1.2. Access to Qualtrics platform
- 1.3. Access to secure UEL servers for data storage and transfer
- 1.4. Information Sheet (Appendix A)
- 1.5. Consent Form (Appendix B)
Debrief Sheet (Appendix C)
- 1.6. Measures included in the survey (available in appendix E to I) and described below

- The vignettes (Appendix E):

Seven vignettes aimed at capturing ethical dilemmas in healthcare were designed for the purpose of this study. The use of vignettes in social science is problematic if there is no effort made to increase internal validity (Hughes & Huby, 2004). Vignettes were created based on the clinical experience of the author as well as NICE and NHS guidelines for each issue. In addition, media stories were methodically considered as to integrate issues that would be likely to be understood/interesting/relevant to participants. In order to increase internal validity of the vignettes, they will be vetted by professionals who work in mental and physical health settings so that the plausibility of the settings and realistic aspects are confirmed. A group of individuals will be consulted in order to find out if these vignettes are accessible to laypeople (i.e. people who do not work in healthcare settings). Participants will be asked to tick the statement that best represents their views. A qualitative box will be available for participants to add comments if they wish to do so. The vignettes will be scored on four dimensions that represent main ethical principles salient in the NHS rationing debate (1: vulnerability-based; 2: consequence-based; 3: contribution-based; 4: causality-based). These were grounded in the available literature on ethics in healthcare (such as debates on deontology, utilitarianism, health maximisation and issues around cost-efficiency) and aim to represent individual preferences for such situations in accessible language. They are attached to this document in Appendix E.

- Moral values (Appendix F)

The Moral Foundation Questionnaire (MFQ; Davies, Sibley, & Liu, 2014; Graham et al., 2011) is a self-report questionnaire which looks at whether participants endorse five domains of moral concerns: 1) Harm/Care; 2) Fairness/Reciprocity; 3) Loyalty/In-group; 4) Authority/Respect; 5) Purity/Sanctity. In part 1 (16 items), participants respond to the moral relevance of each item from 0 (not at all relevant) to 5 (extremely relevant) and in part 2 (16 items) they respond by stating whether they agree, from 0 (strongly disagree) to 5 (strongly agree), with specific statements. Scores vary from 0 to 30 on each foundation. Cronbach's reliability statistics vary from $\alpha=.67$ to $\alpha=.84$.

- Multidimensional Health Locus of Control Scales (Appendix G)

The MHLC (Wallston, Wallston, & DeVellis, 1978) is set to help understand personal beliefs that underpin health behaviours and is grounded in the Locus of Control theory (Rotter, 1966). Form A (18 items) will be used because it is the most appropriate to a 'relatively healthy sample' (Wallston, 1993). All the items are scored from 1 to 6 presented in

a Likert scale (Strongly disagree-strongly agree). The score obtained in each subscale, therefore, ranges from 6 to 36 and are independently assessed. Subscales include: Internal Health Locus of Control); PHLC (Powerful others Health Locus of Control); CHLC (Chance Health Locus of Control). Cronbach's alpha coefficients range from 0.70 to 0.73 (Hubley & Wagner, 2004)

- Demographics and personal questionnaire (Appendix F):

Demographic questions have been designed for this study and resemble what can be found in other similar studies (age, gender, occupation, religion, etc...). Some of these were inspired by the questions used by the Moral Foundation Questionnaire team in their ongoing online research project (Yourmoral.org)

Political leaning will be measured using political scales (extracted from British Social Attitude Survey (BSAS)). They include 'Left-right'; 'Libertarian-authoritarian'; and 'Welfarism'. Each of these consists of statements to which the respondent is invited to tick "agree strongly", "agree", "neither agree nor disagree", "disagree" or "disagree strongly". The scales have been tested for reliability with Cronbach's alphas respectively 0.82, 0.79, and 0.83 (DeVellis, 2003: 95-96). The BSA questions about participants position on Europe were also used due to the recent debate over Brexit and NHS funding. A last question was designed by the researcher ('Did NHS resources impact the way they thought about this debate?_Yes / no').

- Access to health (Appendix G)

An excerpt from health in The Second European Union Minorities and Discrimination Survey (2016) will be used for questions on access to healthcare as they provide a solid framework for comparison with data reported by the European Commission on such issues. It includes 5 to 10 questions (depending on whether the participant has needed services or experienced discrimination). Most questions are yes-no or options about potential types of discrimination experienced. This survey will be placed in middle of the demographic questionnaire because the researcher did not want for the last question of the survey to be about experiences of discrimination and for the survey to flow better.

Demographics (including political leaning and access to health) were placed at the end of the questionnaire for a number of reasons. Allen (2017) stated that it allows a fatigued participant to complete the survey because demographic and personal questions are less tiring to answer. Additionally, participants may be more willing to answer personal questions if these are not at the beginning of the questionnaire as they are more invested in the study (Allen, 2017).

The survey will be piloted with individuals from the researcher's network to check for length, readability and fatigue.

The questionnaire was placed in the above order (with vignettes first) so that responses to measures and demographics do not influence responses to the vignettes. Moral values and health locus of control will be presented on a randomised basis as to minimise order bias (Lavrakas, 2008).

3.7 Data collection:

A link to the research study will be shared on a range of online platform such as Facebook, Twitter, LinkedIn and other online forums. The hope is to reach a wide range of people, so the link will encourage participants to share the link/survey with others, should they wish to (snowballing method).

Participants will be asked to complete a set of questionnaires and answer questions about vignettes. The measure used are specified in the materials section of the ethics form. The study will take approximately 25 mins to complete.

3.8 Data analysis:

Once data will have been collected from a sufficient number of participants and by April 2021, the survey will be closed, and data will be transferred into SPSS and MPlus for coding and analysis. After this, a request will be placed with Qualtrics so that the survey is deleted off their server.

Based on sample size, questionnaire and vignette data will be analysed using parametric and non-parametric tests when parametric assumptions are not met. Type of analysis will include correlations (Pearson and Spearman) and associations (Chi Square), regressions (e.g. generalised linear model), MANOVAS as well as mediation and moderation analyses. There may also be scope for structural equation modelling (excluding nominal variables) if the quality of the data and sample size are appropriate.

Open ended comment boxes will be analysed using content analysis.

4. Confidentiality and security

It is vital that data are handled carefully, particularly the details about participants. For information in this area, please see the [UEL guidance on data protection](#), and also the [UK government guide to data protection regulations](#).

4.1 Will participants data be gathered anonymously?

Yes

4.2 If not (e.g., in qualitative interviews), what steps will you take to ensure their anonymity in the subsequent steps (e.g., data analysis and dissemination)?

N/A

4.3 How will you ensure participants details will be kept confidential?

Participants will complete the study online via Qualtrics, no name, IP or email addresses will be collected. Participants will be asked for a 4-digit code, so that their data can be withdrawn if they wish to at a later date. Participants will be able to email the researcher if they want to withdraw their data or to ask for a summary of the findings. Those wishing

to withdraw their data will have three weeks from the date of completion; this will be communicated on the participant information sheet and debrief sheet.

Participants' emails (collected to enter in prize draw) will be stored in a different password-protected spreadsheet so that they cannot be linked to their responses in the dataset. Only the researcher will have access to this information.

Details of participants interested in receiving a summary of the study findings will be entered into a separate password-protected spreadsheet. Research data will not be linked to contact details provided at this stage. Only the researcher will have access to this information.

4.4 How will the data be securely stored?

The data will be stored in a private computer (the researcher's) on a spreadsheet protected by a password (i.e., password protected file on a password protected computer). Anonymised data will be backed up to the researcher's UEL OneDrive.

The thesis will be backed up to the researcher's UEL storage.

No one outside the research team (lead researcher, research supervisor and secondary supervisor) will have access to the research data. Examiners may request to see anonymised data. Upon completion of the study anonymised data will be stored on the research supervisor's UEL OneDrive for a maximum of three years.

Participants' contact details provided for the prize draw will be deleted once the winners have been notified and accepted the Amazon vouchers. Participants' contact details provided to receive a summary of the study findings will be deleted once this information has been sent to the participant.

4.5 Who will have access to the data?

The researcher, her supervisor and the secondary supervisor

4.6 How long will data be retained for?

Anonymised data will be kept for a maximum of three years. All other information will be deleted as described above.

5. Informing participants

Please confirm that your information letter includes the following details:

Your research title: shortened version: 'Preferences for Allocation of Healthcare Resources'

5.1 Your research question

Research questions may influence how the participants respond to the survey and lead to social desirability bias, therefore, they were not fully included. Instead

the topic is broadly defined. However, no deception was used and the participants will be informed of the nature of the study. They will also be debriefed upon completion.

5.2 The purpose of the research

5.3 The exact nature of their participation. This includes location, duration, and the tasks etc. involved

5.4 That participation is strictly voluntary:

5.5 What are the potential risks to taking part

5.6 What are the potential advantages to taking part

5.7 Their right to withdraw participation (i.e., to withdraw involvement at any point, no questions asked):

5.8 Their right to withdraw data (usually within a three-week window from the time of their participation):

5.9 How long their data will be retained for:

5.10 How their information will be kept confidential

5.11 How their data will be securely stored

5.12 What will happen to the results/analysis

5.13 Your UEL contact details

5.14 The UEL contact details of your supervisor:

Please also confirm whether:

5.15 Are you engaging in deception? If so, what will participants be told about the nature of the research, and how will you inform them about its real nature.

NO

5.16 Will the data be gathered anonymously? If NO what steps will be taken to ensure confidentiality and protect the identity of participants?

Yes

5.17 Will participants be paid or reimbursed? If so, this must be in the form of redeemable vouchers, not cash. If yes, why is it necessary and how much will it be worth?

Participants will be given the option of entering a prize draw to win 4 x £25 Amazon vouchers.

Participation to the draw will be done by entering an email address in a text box at the end of the study. Email addresses will be removed from the data set and stored on a separate spreadsheet as to ensure that it cannot be linked to data responses. Only the researcher will have access to them. Participants do not have to enter their email addresses and will be reminded of it. Interested participants will be assigned a number and winning numbers chosen at random via an app. Winners will be notified via email.

6. Risk Assessment

Please note: If you have serious concerns about the safety of a participant, or others, during the course of your research please see your supervisor as soon as possible. If there is any unexpected occurrence while you are collecting your data (e.g. a participant or the researcher injures themselves), please report this to your supervisor as soon as possible.

6.1 Are there any potential physical or psychological risks to participants related to taking part? If so, what are these, and how can they be minimised?

No. Participants will not be asked about distressing topics or experiences and all data will be collected online; however, they will be informed in the information sheet that the survey includes vignettes about challenging healthcare dilemmas and will provide details about mental health/specific support in relation to the issues discussed in the vignettes. Information regarding supporting agencies will be provided at the start of the survey in the event that the participant does not complete the survey and again in the debrief sheet.

6.2 Are there any potential physical or psychological risks to you as a researcher? If so, what are these, and how can they be minimised?

No, data collection will be completed online, and no personal contact details will be used during the study (e.g., only UEL email address will be used).

6.3 Have appropriate support services been identified in the debrief letter? If so, what are these, and why are they relevant?

I signposted to services that are relevant to issues discussed in the vignettes.

- The Samaritans are available at **116 123**. They offer a **24/7** helpline and provide support to anyone experiencing psychological distress.
- The British Liver Trust Helpline offers support for anyone affected by a liver condition. Call **0800 652 7330** between **10am and 3pm Monday to Friday (not bank holidays)** or email helpline@britishlivertrust.org.uk (emails can be sent at any time and are answered during helpline hours).

- Refugee Action offers help and advice for refugees and asylum seekers on a wide range of issues such as how accessing support: www.refugee-action.org.uk
- **The Terrence Higgins Trust** provides a helpline for anyone with concerns about their sexual health. Call **0808 802 1221** between 10am and 6pm Monday to Friday for more information.
- You General Practitioner (GP) can also help and signpost you in case of emotional distress.

6.4 Does the research take place outside the UEL campus? If so, where?

No, it is online

If so, a 'general risk assessment form' must be completed. This is included below as appendix D. Note: if the research is on campus, or is online only (e.g., a Qualtrics survey), then a risk assessment form is not needed, and this appendix can be deleted. If a general risk assessment form is required for this research, please tick to confirm that this has been completed:

6.5 Does the research take place outside the UK? If so, where?

No, it is online

If so, in addition to the 'general risk assessment form', a 'country-specific risk assessment form' must be also completed (available in the [Ethics folder in the Psychology Noticeboard](#)), and included as an appendix. (Please note: a country-specific risk assessment form is not needed if the research is online only (e.g., a Qualtrics survey), regardless of the location of the researcher or the participants.) If a 'country-specific risk assessment form' is needed, please tick to confirm that this has been included:

However, please also note:

- For assistance in completing the risk assessment, please use the [AIG Travel Guard](#) website to ascertain risk levels. Click on 'sign in' and then 'register here' using policy # 0015865161. Please also consult the [Foreign Office travel advice website](#) for further guidance.
- For *on campus* students, once the ethics application has been approved by a reviewer, all risk assessments for research abroad must then be signed by the Head of School (who may escalate it up to the Vice Chancellor).
- For *distance learning* students conducting research abroad in the country where they currently reside, a risk assessment must be also carried out. To minimise risk, it is recommended that such students only conduct data collection on-line. If the project is deemed low risk, then it is not necessary for the risk assessments to be signed by the Head of School. However, if not deemed low risk, it must be signed by the Head of School (or potentially the Vice Chancellor).
- Undergraduate and M-level students are not explicitly prohibited from conducting research abroad. However, it is discouraged because of the inexperience of the students and the time constraints they have to complete their degree.

7. Disclosure and Barring Service (DBS) certificates

7.1 Does your research involve working with children (aged 16 or under) or vulnerable adults (*see below for definition)?

NO

7.2 If so, you will need a current DBS certificate (i.e., not older than six months), and to include this as an appendix. Please tick to confirm that you have included this:

Alternatively, if necessary, for reasons of confidentiality, you may email a copy directly to the Chair of the School Research Ethics Committee. Please tick if you have done this instead:

Also, alternatively, if you have an Enhanced DBS clearance (one you pay a monthly fee to maintain) then the number of your Enhanced DBS clearance will suffice. Please tick if you have included this instead:

7.3 If participants are under 16, you need 2 separate information letters, consent form, and debrief form (one for the participant, and one for their parent/guardian). Please tick to confirm that you have included these:

7.4 If participants are under 16, their information letters consent form, and debrief form need to be written in age-appropriate language. Please tick to confirm that you have done this

* You are required to have DBS clearance if your participant group involves (1) children and young people who are 16 years of age or under, and (2) 'vulnerable' people aged 16 and over with psychiatric illnesses, people who receive domestic care, elderly people (particularly those in nursing homes), people in palliative care, and people living in institutions and sheltered accommodation, and people who have been involved in the criminal justice system, for example. Vulnerable people are understood to be persons who are not necessarily able to freely consent to participating in your research, or who may find it difficult to withhold consent. If in doubt about the extent of the vulnerability of your intended participant group, speak to your supervisor. Methods that maximise the understanding and ability of vulnerable people to give consent should be used whenever possible. For more information about ethical research involving children [click here](#).

8. Other permissions

9. Is HRA approval (through IRAS) for research involving the NHS required? Note: HRA/IRAS approval is required for research that involves patients or Service Users of the NHS, their relatives or carers as well as those in receipt of services provided under contract to the NHS.

NO If yes, please note:

- You DO NOT need to apply to the School of Psychology for ethical clearance if ethical approval is sought via HRA/IRAS (please see [further details here](#)).
- However, the school *strongly discourages* BSc and MSc/MA students from designing research that requires HRA approval for research involving the NHS, as this can be a very demanding and lengthy process.
- If you work for an NHS Trust and plan to recruit colleagues from the Trust, permission from an appropriate manager at the Trust must be sought, and HRA approval will probably be needed (and hence is likewise strongly discouraged). If the manager happens to not require HRA approval, their written letter of approval must be included as an appendix.
- IRAS approval is not required for NHS staff even if they are recruited via the NHS (UEL ethical approval is acceptable). However, an application will still need to be submitted to the HRA in order to obtain R&D approval. This is in addition to a separate approval via the R&D department of the NHS Trust involved in the research.
- IRAS approval is not required for research involving NHS employees when data collection will take place off NHS premises, and when NHS employees are not recruited directly through NHS lines of communication. This means that NHS staff can participate in research without HRA approval when a student recruits via their own social or professional networks or through a professional body like the BPS, for example.

9.1 Will the research involve NHS employees who will not be directly recruited through the NHS, and where data from NHS employees will not be collected on NHS premises?

We do not intent to recruit NHS employees directly, but it is very possible that some of the participants will happen to also be NHS employees because this is an online questionnaire and we hope to recruit as many people as possible on a range of social media. No data will be kept on NHS premises.

9.2 If you work for an NHS Trust and plan to recruit colleagues from the Trust, will permission from an appropriate member of staff at the Trust be sought, and will HRA be sought, and a copy of this permission (e.g., an email from the Trust) attached to this application?

NO

9.3 Does the research involve other organisations (e.g. a school, charity, workplace, local authority, care home etc.)? If so, please give their details here.

NO

Furthermore, written permission is needed from such organisations if they are helping you with recruitment and/or data collection, if you are collecting data on

their premises, or if you are using any material owned by the institution/organisation. If that is the case, please tick here to confirm that you have included this written permission as an appendix:

In addition, before the research commences, once your ethics application has been approved, please ensure that you provide the organisation with a copy of the final, approved ethics application. Please then prepare a version of the consent form for the organisation themselves to sign. You can adapt it by replacing words such as 'my' or 'I' with 'our organisation,' or with the title of the organisation. This organisational consent form must be signed before the research can commence.

Finally, please note that even if the organisation has their own ethics committee and review process, a School of Psychology SREC application and approval is still required. Ethics approval from SREC can be gained before approval from another research ethics committee is obtained. However, recruitment and data collection are NOT to commence until your research has been approved by the School and other ethics committee/s as may be necessary.

9. Declarations

Declaration by student: I confirm that I have discussed the ethics and feasibility of this research proposal with my supervisor.

Student's name (typed name acts as a signature): Oona Marie McEwan

Student's number: 1762764

Date: 4 June 2020

As a supervisor, by submitting this application, I confirm that I have reviewed all parts of this application, and I consider it of sufficient quality for submission to the SREC committee.

NOTICE OF ETHICS REVIEW DECISION

For research involving human participants

BSc/MSc/MA/Professional Doctorates in Clinical, Counselling and Educational Psychology

REVIEWER: Miha Constantinescu

SUPERVISOR: Trishna Patel

STUDENT: Oona Marie McEwan

Course: Professional Doctorate in Clinical Psychology

Title of proposed study: 'Moral Values, Perceived Access to Care and Preferences for Healthcare Resource Allocation'

DECISION OPTIONS:

1. **APPROVED:** Ethics approval for the above named research study has been granted from the date of approval (see end of this notice) to the date it is submitted for assessment/examination.
2. **APPROVED, BUT MINOR AMENDMENTS ARE REQUIRED BEFORE THE RESEARCH COMMENCES** (see Minor Amendments box below): In this circumstance, re-submission of an ethics application is not required but the student must confirm with their supervisor that all minor amendments have been made before the research commences. Students are to do this by filling in the confirmation box below when all amendments have been attended to and emailing a copy of this decision notice to her/his supervisor for their records. The supervisor will then forward the student's confirmation to the School for its records.
3. **NOT APPROVED, MAJOR AMENDMENTS AND RE-SUBMISSION REQUIRED** (see Major Amendments box below): In this circumstance, a revised ethics application must be submitted and approved before any research takes place. The revised application will be reviewed by the same reviewer. If in doubt, students should ask their supervisor for support in revising their ethics application.

DECISION ON THE ABOVE-NAMED PROPOSED RESEARCH STUDY

(Please indicate the decision according to one of the 3 options above)

| |
|-------------|
| 1. Approved |
|-------------|

Minor amendments required (for reviewer):

| |
|----------------------|
| |
|----------------------|

Major amendments required (for reviewer):

| |
|--|
| |
|--|

Confirmation of making the above minor amendments (for students):

| |
|---|
| I have noted and made all the required minor amendments, as stated above, before starting my research and collecting data. |
| Student's name <i>(Typed name to act as signature)</i> : Student number: |
| Date: |
| <i>(Please submit a copy of this decision letter to your supervisor with this box completed, if minor amendments to your ethics application are required)</i> |

ASSESSMENT OF RISK TO RESEACHER (for reviewer)

Has an adequate risk assessment been offered in the application form?

YES / NO

Please request resubmission with an adequate risk assessment

If the proposed research could expose the researcher to any of kind of emotional, physical or health and safety hazard? Please rate the degree of risk:

HIGH

Please do not approve a high risk application and refer to the Chair of Ethics. Travel to countries/provinces/areas deemed to be high risk should not be permitted and an application not approved on this basis. If unsure please refer to the Chair of Ethics.

MEDIUM (Please approve but with appropriate recommendations)

LOW

Reviewer comments in relation to researcher risk (if any).

Reviewer (*Typed name to act as signature*): Dr Miha Constantinescu

Date: 6.07.2020

This reviewer has assessed the ethics application for the named research study on behalf of the School of Psychology Research Ethics Committee

RESEARCHER PLEASE NOTE:

For the researcher and participants involved in the above named study to be covered by UEL's Insurance, prior ethics approval from the School of Psychology (acting on behalf of the UEL Research Ethics Committee), and confirmation from students where minor amendments were required, must be obtained before any research takes place.

For a copy of UEL's Personal Accident & Travel Insurance Policy, please see the Ethics Folder in the Psychology Noticeboard

6.4. Appendix D – Ethics Amendment

UNIVERSITY OF EAST LONDON School of Psychology

REQUEST FOR AMENDMENT TO AN ETHICS APPLICATION

FOR BSc, MSc/MA & TAUGHT PROFESSIONAL DOCTORATE STUDENTS

Please complete this form if you are requesting approval for proposed amendment(s) to an ethics application that has been approved by the School of Psychology.

Note that approval must be given for significant change to research procedure that impacts on ethical protocol. If you are not sure about whether your proposed amendment warrants approval consult your supervisor or contact Dr Tim Lomas (Chair of the School Research Ethics Committee).

HOW TO COMPLETE & SUBMIT THE REQUEST

1. Complete the request form electronically and accurately.
2. Type your name in the 'student's signature' section (page 2).
3. When submitting this request form, ensure that all necessary documents are attached (see below).
4. Using your UEL email address, email the completed request form along with associated documents to: Dr Mark Finn at m.finn@uel.ac.uk
5. Your request form will be returned to you via your UEL email address with reviewer's response box completed. This will normally be within five days. Keep a copy of the approval to submit with your project/dissertation/thesis.
6. Recruitment and data collection are **not** to commence until your proposed amendment has been approved.

REQUIRED DOCUMENTS

1. A copy of your previously approved ethics application with proposed amendments(s) added as tracked changes.
2. Copies of updated documents that may relate to your proposed amendment(s). For example an updated recruitment notice, updated participant information letter, updated consent form etc.

3. A copy of the approval of your initial ethics application.

| | |
|---------------------|---|
| Name of applicant: | Oona McEwan |
| Programme of study: | Professional Doctorate in Clinical Psychology |
| Title of research: | Doctoral Thesis |
| Name of supervisor: | Dr Trishna Patel |

Briefly outline the nature of your proposed amendment(s) and associated rationale(s) in the boxes below

| Proposed amendment | Rationale |
|---|---|
| Adding Facebook Ads (paid for – around £50) to current social media snowballing recruitment method. | <p>The project has already recruited 462 participants however, those are largely female, London-based and tend to vote Labour. This project hopes to recruit a population more representative of the UK population and, therefore, would like to use Facebook Ads to target men who live outside of London and maybe who have more conservative views. The project being on preferences for allocation of healthcare resources and moral values, it would be significant to reach an audience that represents the country and that is not within the researcher's network. The advert will be as used on the free social media and attached on this page. The amount estimated to be spent on these ads is around £50.</p> <p>A few studies have reviewed the use of Facebook ads and do not seem to highlight any specific ethical issues – aside that it can sometimes be useless if the targeted population is specifically hard to reach:</p> |

| | |
|--|---|
| | <p>Wozney, L., Turner, K., Rose-Davis, B., & McGrath, P. J. (2019). Facebook ads to the rescue? Recruiting a hard to reach population into an Internet-based behavioral health intervention trial. <i>Internet Interventions, 17</i>, 100246.</p> <p>Loxton, D., Powers, J., Anderson, A. E., Townsend, N., Harris, M. L., Tuckerman, R., ... & Byles, J. (2015). Online and offline recruitment of young women for a longitudinal health survey: findings from the Australian longitudinal study on women's health 1989-95 cohort. <i>Journal of medical Internet research, 17</i>(5), e109.</p> |
| | |
| | |

| Please tick | YES | NO |
|---|-----|----|
| Is your supervisor aware of your proposed amendment(s) and agree to them? | x | |

Student's signature (please type your name): Oona Marie McEwan

Date: 29/10/2020

| TO BE COMPLETED BY REVIEWER | | |
|------------------------------------|-----|--|
| Amendment(s) approved | YES | |
| Comments | | |

Reviewer: Tim Lomas

Date: 1.11.20

6.5. Appendix E – Participants Information Letter – Survey (downloadable after reading on Qualtrics)



PARTICIPANT INVITATION LETTER **Preferences for Allocation of Healthcare Resources**

UNIVERSITY OF EAST LONDON

School of Psychology
Stratford Campus
Water Lane
London E15 4LZ

The Principal Investigator

Oona McEwan
Email: u1725764@uel.ac.uk

You are being invited to participate in a research study. Before you agree it is important that you understand what your participation would involve. Please take time to read the following information carefully. If you have any questions, the researcher can be contacted on the above email address.

Who am I?

I am a postgraduate student in the School of Psychology at the University of East London and am studying for a Doctorate in Clinical Psychology. As part of my studies, I am conducting the research you are being invited to participate in.

What is the research?

I am conducting research into preferences for allocations of healthcare resources in the UK and how these interplay with people's values, and a wide range of demographic/personal factors. It is hoped that the study will provide information that may help healthcare professionals to provide the best possible services to people, to better understand some key human processes in decision making and for policies to be developed accordingly.

Why have you been asked to participate?

I am looking to recruit a range of individuals who live in the UK to gain an understanding of the views of the general public on these issues. If you are over 18 years of age and have lived in the UK for at least three years or lived in the UK for three years at some point, you are eligible to take part in the study.

I am not looking for 'experts' in the topic area. I want to emphasise that all data collected will be anonymous (survey responses will not be linked to you personally) and you will not be judged negatively for your survey responses.

Why participate?

This study is about the National Health Service (NHS) and the preferences of the general public as to what would be a fair distribution of resources. Such psychological research endeavours to provide the data necessary to create better services and policies.

You are free to decide whether or not to participate and should not feel coerced.

What will participation involve?

If you agree to participate, you will be asked to complete an online survey lasting approximately 25 minutes. The survey will include demographic and personal (non-identifiable) information, questions on your values, your experience of healthcare services, social and economic preferences. You will also be presented with short vignettes focussing on challenging health care decisions (including physical and mental health). You will not be asked for your name and there will be no way of linking you personally with your responses. These questions are not designed to be distressing, however, if you do experience any distress, you are free to stop the survey at any time. The survey can be completed in your own time from any device (e.g., laptop, smart phone etc.). If you exit the survey you may be logged out so (although some setups will allow to access the survey where you left off) so please take the survey at a convenient time so that you can complete it in one sitting.

If you wish to and as a token of my appreciation for your time, you will be entered in a draw to win one of four £25 Amazon vouchers. To enter this draw you will be asked to enter your email address after you have completed the questionnaire. Your email address will be stored separately from your responses, on a password protected spreadsheet, and only the researcher will have access to it. All email addresses will be deleted after the draw is complete. Winners will be notified via this email address by the researcher. You do not have to enter the draw and provide your email.

Will my data be kept safe and confidential?

In order to ensure that your survey responses are anonymous, you will be asked to generate a unique code when completing the online survey. If you wish to withdraw your data following the completion of the survey, you will need to provide this unique code. Once you provide the researcher with this code, your data will be deleted. If you wish to withdraw your data from the study, you will have three weeks from the completion of the study (as after that the data will be grouped and analysed). Once the study is closed, all anonymised data will be downloaded and stored for three years on a password protected computer file only accessible by the research team, in-line with Research Councils UK (RCUK) guidance. After this date, the data will be destroyed, and all files deleted. Analysed group data will be used for dissemination (e.g., journal articles, conference presentations). However, in all disseminated material no individual data will be identifiable.

What will happen to the information that I provide (online data protection)?

This survey is online, and answers will be anonymous. This means that no emails, names, IP or geolocation will be collected. HTTPS survey links (also known as secure survey links) have been used, giving Secure Sockets Layer (SSL) Encryption while a questionnaire is being completed. The data will be collected online and stored on an EU-based server, therefore being subject to EU data protection acts and laws. Online data will be destroyed after completion of data collection.

What if I want to withdraw?

You do not have to take part in this survey and are free to withdraw at any point during the survey. If you decide to withdraw your data once you have completed the survey, you have three weeks following the date of completion to do so. Simply email the researcher with 'withdrawal from study' and your unique code in the subject line, and your data will be deleted. Should you choose to withdraw, you may do so without any negative consequences or providing a reason for doing so.

What will happen to the results of the research study?

The results of the study will be written up as a doctoral thesis and submitted for publication in a psychological journal. You will be given the opportunity to indicate if you have an interest in receiving a summary of the results.

Who has reviewed the study?

My research has been approved by the School of Psychology Research Ethics Committee. This means that the Committee's evaluation of this ethics application has been guided by the standards of research ethics set by the British Psychological Society. All research conducted in the University of East London is looked at by an independent group of people, called a Research Ethics Committee to protect your safety, rights, well-being and dignity.

What if I feel upset?

It is not anticipated that you will be adversely affected by taking part in the research, and all reasonable steps have been taken to minimise potential harm. Nevertheless, it is still possible that your participation – or its after-effects – may be challenging, distressing or uncomfortable in some way. If you are affected in any of those ways you may find the following resources/services helpful in relation to obtaining information and support:

- The Samaritans are available at **116 123**. They offer a **24/7** helpline and provide support to anyone experiencing psychological distress.
- The British Liver Trust Helpline offers support for anyone affected by a liver condition. Call **0800 652 7330** between **10am and 3pm Monday to Friday (not bank holidays)** or email helpline@britishlivertrust.org.uk (emails can be sent at any time and are answered during helpline hours).
- Refugee Action offers help and advice for refugees and asylum seekers on a wide range of issues such as how accessing support: www.refugee-action.org.uk

- **The Terrence Higgins Trust** provides a helpline for anyone with concerns about their sexual health. Call **0808 802 1221** between 10am and 6pm Monday to Friday for more information.
- Your General Practitioner (GP) can also help and signpost you in case of emotional distress.

Contact Details

If you would like further information about my research or have any questions or concerns, please do not hesitate to contact me. Oona McEwan, u1725764@uel.ac.uk

If you have any questions or concerns about how the research has been conducted or would like to make a complaint, please contact the research supervisor Dr Trishna Patel, t.patel@uel.ac.uk

School of Psychology, University of East London, Water Lane, London E15 4LZ,

Or

Chair of the School of Psychology Research Ethics Sub-committee: Dr Tim Lomas,
School of Psychology, University of East London, Water Lane, London E15 4LZ.
(Email: t.lomas@uel.ac.uk)

6.6. Appendix F - Consent questions (extracted from Qualtrics)

Please read the statements below and tick 'yes' if you agree to take part in the study. If you tick 'no' to any of these statements, you will be taken to the end of the study.

I have the read the information relating to this research study. The nature and aims of the project have been explained to me and I have had the opportunity to consider the details or ask questions about this information. I understand what is being proposed and the procedure has been explained to me.

Yes (1)

No (2)

It has been explained to me that data collected for this study, as well as my involvement, will remain confidential. As the data is collected anonymously, there will be no way of identifying me. The data will only be accessed by the researchers involved. I understand what will happen to the data once the research study has been completed.

Yes (1)

No (2)

I understand that I have the right to withdraw from the study without disadvantage or having to provide a reason, and that it will not be possible to withdraw my data three weeks after completion of the survey.

Yes (1)

No (2)

I hereby consent to participate in the study.

Yes (1)

No (2)

6.7. Appendix G – Debrief letter



DEBRIEF SHEET **Preferences for Allocation of Healthcare Resources**

Thank you for participating in my research study on Preferences for Allocation of Healthcare Resources. This letter offers information that may be relevant in light of you having now taken part.

The purpose of the study is to investigate preferences for allocations of healthcare resources in the UK and how these interplay with people's values, and a wide range of demographic/personal factors. It is hoped that the study will provide information that may help healthcare professionals to provide the best possible services to people, to better understand some key human processes and for policies to be developed accordingly.

What will happen to the information that I have provided?

The following steps will be taken to ensure the confidentiality and integrity of the data you have provided. You have been asked to provide a unique code that you will need to retain so that if you want to withdraw from the study, you can simply supply the number and your data will be deleted. If you wish to withdraw, you will be able to do so for three weeks after completion of the study as after that the data will be grouped and analysed. Once the study is closed, all anonymised data will be downloaded and stored for three years on a password protected computer file only accessible by the research team, in line with Research Councils UK (RCUK) guidance. After this date, the data will be destroyed, and all files deleted. Analysed group data will be used for dissemination and no individual data will be identifiable. The answers are anonymous. This means that no emails, names, IP or geolocation have been collected. HTTPS survey links (also known as secure survey links) have been used, giving Secure Sockets Layer (SSL) Encryption while a questionnaire is being completed. The data has been collected online and stored on an EU-based server, therefore being subject to EU data protection acts and laws. Online data will be destroyed after completion of data collection.

A summary of the results of this study can be sent to you after it has been completed. If you are interested, please email the researcher (u1725764@uel.ac.uk) with 'result summary' as a subject. It is not necessary to add anything else to your email. This is so your request cannot be linked to your answers, which can therefore remain anonymous.

What if I have been adversely affected by taking part?

It is not anticipated that you will have been adversely affected by taking part in the research, and all reasonable steps have been taken to minimise potential harm. Nevertheless, it is still possible that your participation – or its after-effects – may have been challenging, distressing or uncomfortable in some way. If you have been affected in any of those ways you may find the following resources/services helpful in relation to obtaining information and support:

- The Samaritans are available at **116 123**. They offer a **24/7** helpline and provide support to anyone experiencing psychological distress.
- The British Liver Trust Helpline offers support for anyone affected by a liver condition. Call **0800 652 7330** between **10am and 3pm Monday to Friday (not bank holidays)** or email helpline@britishlivertrust.org.uk (emails can be sent at any time and are answered during helpline hours).
- Refugee Action offers help and advice for refugees and asylum seekers on a wide range of issues such as how accessing support: www.refugee-action.org.uk
- **The Terrence Higgins Trust** provides a helpline for anyone with concerns about their sexual health. Call **0808 802 1221** between 10am and 6pm Monday to Friday for more information.
- Your General Practitioner (GP) can also help and signpost you in case of emotional distress.

If you would like further information about my research or have any questions or concerns, please do not hesitate to contact me: Oona McEwan, u1725764@uel.ac.uk

If you have any questions or concerns about how the research has been conducted or would like to make a complaint, please contact the research supervisor Dr Trishna Patel, t.patel@uel.ac.uk

School of Psychology, University of East London, Water Lane, London E15 4LZ,

Or

Chair of the School of Psychology Research Ethics Sub-committee: Dr Tim Lomas, School of Psychology, University of East London, Water Lane, London E15 4LZ.

(Email: t.lomas@uel.ac.uk)

Thank you again for your time

Oona McEwan

The Terrence Higgins Trust provides a helpline for anyone with concerns about their sexual health. Call 0808 802 1221 between 10am and 6pm Monday to Friday for more information.

Your General Practitioner (GP) can also help and signpost you in case of emotional distress.

If you would like further information about my research or have any questions or concerns, please do not hesitate to contact me: Oona McEwan,
u1725764@uel.ac.uk

If you have any questions or concerns about how the research has been conducted or would like to make a complaint, please contact the research supervisor Dr Trishna Patel, t.patel@uel.ac.uk

School of Psychology, University of East London, Water Lane, London E15 4LZ,
Or

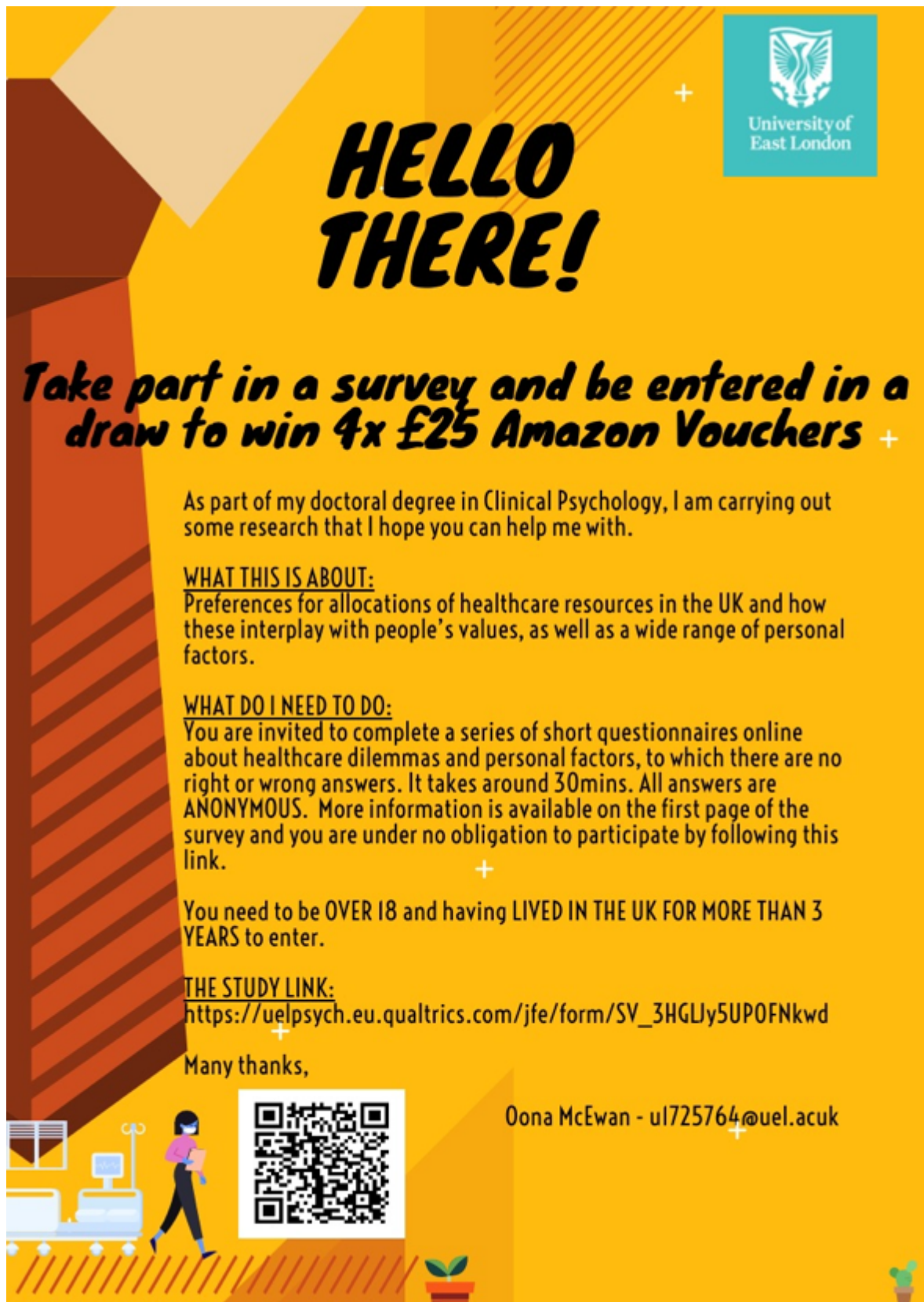
Chair of the School of Psychology Research Ethics Sub-committee: Dr Tim Lomas, School of Psychology, University of East London, Water Lane, London E15 4LZ.

(Email: t.lomas@uel.ac.uk)

Thank you again for your time

Oona McEwan

6.8. Appendix H - Advert for Survey



The advertisement features a bright yellow background with abstract geometric shapes in shades of orange and brown. In the top right corner, there is a teal square containing the University of East London logo and name. The main text is in large, bold, black letters. The survey details are presented in a clear, readable font. At the bottom, there is a QR code and a small illustration of a person walking in a hospital setting.

HELLO THERE!

Take part in a survey and be entered in a draw to win 4x £25 Amazon Vouchers +

As part of my doctoral degree in Clinical Psychology, I am carrying out some research that I hope you can help me with.

WHAT THIS IS ABOUT:
Preferences for allocations of healthcare resources in the UK and how these interplay with people's values, as well as a wide range of personal factors.





WHAT DO I NEED TO DO:
You are invited to complete a series of short questionnaires online about healthcare dilemmas and personal factors, to which there are no right or wrong answers. It takes around 30mins. All answers are ANONYMOUS. More information is available on the first page of the survey and you are under no obligation to participate by following this link.

You need to be OVER 18 and having LIVED IN THE UK FOR MORE THAN 3 YEARS to enter.

THE STUDY LINK:
https://uelpsych.eu.qualtrics.com/jfe/form/SV_3HGLJy5UPOFNkwd

Many thanks,

Oona McEwan - u1725764@uel.ac.uk



6.9. Appendix I - Text advertisement

A version of this text was posted alongside the poster on various social media pages (Facebook, Twitter, Instagram, What's App):

'I am looking for participants for an online survey on preferences for allocation of healthcare resources and personal factors. You'd be participating to very important research and helping me complete my doctorate in Clinical Psychology. It takes 20/30 mins to complete, is anonymous and there are 4 x £25 amazon vouchers to win. I'd really like to hear people's views so please follow the link for more info/take the survey:

https://uelpsyh.eu.qualtrics.com/jfe/form/SV_3HGLJy5UP0FNkwd

Do not hesitate to contact me privately for more details.

Many thanks'

6.10. Appendix J – List of Facebook Groups

List of Facebook Groups where the survey notice was posted by the researchers or reposted by participants between July 2020 and January 2021. This is to the knowledge of the researcher and the post may have been shared with a wider range of people and groups.

- Assistant Psychologists UK – Psychology Graduates & Psychology jobs
- Student Survey Exchange
- Walthamstow Parents
- Trainee Clinical Psychologist Group UK
- UEL Clinical Psychology 2017
- The UEL Psychology Society
- Walthamstow Life
- East London mums and dads
- Walthamstow residents NEWS
- Le cercle des Francais a Londres 2021
- Havant Huddle
- Havant and Waterlooville News
- BAPS – Bisterne Avenue Park & Surrounds
- Redbridge Residents
- Chingford & Highams Park
- Haggerston Friends
- Hackney Parents
- Leytonstone Life
- Drop the Disorder!
- Thanet Chat
- EU nationals in the UK
- Psychology UK
- Psychosocial Studies at UEL
- Margate!
- Clissold Park User Group
- Kensington Mums
- Gaming Streamers UK
- PC Gamers UK
- Ladbroke Grove/North Kensington Community
- UK Walking & Hiking is Great
- Activism Opportunities
- Paid studies, study swap, participant recruitment
- Leytonstone Life
- Redbridge Residents Community Group
- University of East London (UEL) Freshers 2020

6.11. Appendix K – Demographic questions (extracted from Qualtrics)

Please answer these initial demographic questions to make sure that you are eligible for the study (these questions were presented before the vignettes and other questionnaires).

Age (you must be over 18 to take this survey).

▼ Under 18 (1) ... 101 or over (85)

Skip To: End of Block If Age (you must be over 18 to take this survey).=Under 18

Have you lived in the UK for at least 3 years since 2010?

Yes (1)

No (2)

Skip To: End of Survey If Have you lived in the UK for at least 3 years since 2010?=No

How many years would you say that you have lived in the UK overall?

These questions were presented after the vignettes and questionnaires

This section collects a range of personal questions about your demographics, some of your experiences about using healthcare and political views. As the rest of the study, it is anonymous and cannot be linked back to you.

Gender

Where did you grow up?

In what country do you currently live?

What is your highest educational level?

- Did not complete high school (1)
- Completed high school (2)
- Currently in college/university (3)
- Completed college/university (4)
- Currently in postgraduate/professional school (5)
- Completed post graduate/professional school (6)

How do you describe your ethnicity (e.g. White British; White European; Black African; Black British; etc)?

Among the options given below, which describes best the religion you were raised with?

- Buddhist (1)
- Christian (2)
- Hindu (3)
- Islam (4)
- Jewish (5)
- Spiritual but not religious (6)
- Atheist (7)
- Agnostic (8)
- None (9)
- Other – Please define (10)

Among the options given below, which describes best your current religion?

- Buddhist (1)
 - Christian: (2)
 - Hindu (3)
 - Islam (4)
 - Jewish (5)
 - Spiritual but not religious (6)
 - Atheist (7)
 - Agnostic (8)
 - None (9)
 - Other – Please define (10)
-

What is your immigration status?

- UK citizen (1)
 - EU citizen (2)
 - Visa holder (3)
 - Refugee (4)
 - Asylum seeker (5)
 - Illegal immigrant (6)
 - Other - please define (7)
-

How would you describe your sexuality (e.g. heterosexual, gay, bisexual, etc...)

What is your job title/role?

What is your yearly household income (before tax and including benefits/allowances)

Thinking about the entire population in the UK and who is better off (in terms of education, finances, respected jobs), where would you place yourself in comparison to others?

- 1 - the least resources (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)
- 6 (6)
- 7 (7)
- 8 (8)
- 9 (9)
- 10 - the most resources (10)

Over the last 10 years, do you feel that your financial situation has

- Worsened (1)
- Stayed the same (2)
- Improved (3)

Do you have a registered disability?

- Yes (1)
- No (2)
- Other (3) _____

6.12. Appendix L – Political Questions (extracted from Qualtrics)

This last part of the survey will ask you some additional personal questions on societal and political views:

Generally speaking, do you think of yourself as a supporter of any one political party?

Yes (1)

No (2)

If there were a general election tomorrow, which political party do you think you would be most likely to support?

- Conservative (1)
 - Labour (2)
 - Liberal Democrat (3)
 - Scottish National Party (4)
 - Plaid Cymru (5)
 - Green Party (6)
 - UK Independence Party (UKIP)/Veritas (7)
 - Brexit Party (8)
 - British National Party (BNP)/National Front (9)
 - RESPECT/Scottish Socialist Party (SSP)/Socialist Party (10)
 - Other party (11)
-
- Other answer (12)
-
- None (13)

You will find below a number of statements about the society. Beside each statement is a scale which ranges from strongly disagree to strongly agree. Please tick the most appropriate response.

1. Government should redistribute income from the better off to those who are less well-off

- Strongly agree (1)
 - Somewhat agree (2)
 - Neither agree nor disagree (3)
 - Somewhat disagree (4)
 - Strongly disagree (5)
-

2. Big business benefits owners at the expense of workers

- Strongly agree (1)
 - Somewhat agree (2)
 - Neither agree nor disagree (3)
 - Somewhat disagree (4)
 - Strongly disagree (5)
-

3. Ordinary working people do not get their fair share of the nation's wealth

- Strongly agree (1)
 - Somewhat agree (2)
 - Neither agree nor disagree (3)
 - Somewhat disagree (4)
 - Strongly disagree (5)
-

4. There is one law for the rich and one for the poor

- Strongly agree (1)
 - Somewhat agree (2)
 - Neither agree nor disagree (3)
 - Somewhat disagree (4)
 - Strongly disagree (5)
-

5. Management will always try to get the better of employees if it gets the chance

- Strongly agree (1)
 - Somewhat agree (2)
 - Neither agree nor disagree (3)
 - Somewhat disagree (4)
 - Strongly disagree (5)
-

You will find below a number of statements about the society. Beside each statement is a scale which ranges from strongly disagree to strongly agree. Please tick the most appropriate response.

6. Young people today don't have enough respect for traditional British values

- Strongly agree (1)
 - Somewhat agree (2)
 - Neither agree nor disagree (3)
 - Somewhat disagree (4)
 - Strongly disagree (5)
-

7. People who break the law should be given stiffer sentences

- Strongly agree (1)
 - Somewhat agree (2)
 - Neither agree nor disagree (3)
 - Somewhat disagree (4)
 - Strongly disagree (5)
-

8. For some crimes, the death penalty is the most appropriate sentence

- Strongly agree (1)
 - Somewhat agree (2)
 - Neither agree nor disagree (3)
 - Somewhat disagree (4)
 - Strongly disagree (5)
-

9. Schools should teach children to obey authority

- Strongly agree (1)
 - Somewhat agree (2)
 - Neither agree nor disagree (3)
 - Somewhat disagree (4)
 - Strongly disagree (5)
-

10. The law should always be obeyed, even if a particular law is wrong

- Strongly agree (1)
 - Somewhat agree (2)
 - Neither agree nor disagree (3)
 - Somewhat disagree (4)
 - Strongly disagree (5)
-

11. Censorship of films and magazines is necessary to uphold moral standards

- Strongly agree (1)
 - Somewhat agree (2)
 - Neither agree nor disagree (3)
 - Somewhat disagree (4)
 - Strongly disagree (5)
-

You will find below a number of statements about the society. Beside each statement is a scale which ranges from strongly disagree to strongly agree. Please tick the most appropriate response.

12. The welfare state encourages people to stop helping each other

- Strongly agree (1)
 - Somewhat agree (2)
 - Neither agree nor disagree (3)
 - Somewhat disagree (4)
 - Strongly disagree (5)
-

13. The government should spend more money on welfare benefits for the poor, even if it leads to higher taxes

- Strongly agree (1)
 - Somewhat agree (2)
 - Neither agree nor disagree (3)
 - Somewhat disagree (4)
 - Strongly disagree (5)
-

14. Around here, most unemployed people could find a job if they really wanted one

- Strongly agree (1)
 - Somewhat agree (2)
 - Neither agree nor disagree (3)
 - Somewhat disagree (4)
 - Strongly disagree (5)
-

15. Many people who get social security don't really deserve any help

- Strongly agree (1)
 - Somewhat agree (2)
 - Neither agree nor disagree (3)
 - Somewhat disagree (4)
 - Strongly disagree (5)
-

16. Most people on the dole are fiddling in one way or another

- Strongly agree (1)
 - Somewhat agree (2)
 - Neither agree nor disagree (3)
 - Somewhat disagree (4)
 - Strongly disagree (5)
-

17. If welfare benefits weren't so generous, people would learn to stand on their own two feet

- Strongly agree (1)
 - Somewhat agree (2)
 - Neither agree nor disagree (3)
 - Somewhat disagree (4)
 - Strongly disagree (5)
-

18. Cutting welfare benefits would damage too many people's lives

- Strongly agree (1)
 - Somewhat agree (2)
 - Neither agree nor disagree (3)
 - Somewhat disagree (4)
 - Strongly disagree (5)
-

19. The creation of the welfare state is one of Britain's proudest achievement

- Strongly agree (1)
 - Somewhat agree (2)
 - Neither agree nor disagree (3)
 - Somewhat disagree (4)
 - Strongly disagree (5)
-

Thinking about Britain's relationship with the European Union, do you think of yourself as a 'Remainer', a 'Leaver', or do you not think of yourself in that way?

- Remainer (1)
 - Leaver (2)
 - Neither of these, please specify (3)
-

Did NHS resources impact the way you thought about the Brexit debate?

- Yes (1)
 - No (2)
 - Other (3) _____
-

6.13. Appendix M - An excerpt from health in The Second European Union Minorities and Discrimination Survey (European Union Agency for Fundamental Rights, 2017)

How is your health in general? Is it...

- Very good (1)
 - Good (2)
 - Fair (3)
 - Bad (4)
 - Very bad (5)
-

Do you have any longstanding illness or health problem? (Longstanding means one that lasts, or will last 6 months or more)

- Yes (1)
 - No (2)
-

Was there any time during the past 12 months when you really needed a medical examination or treatment for yourself?

- Yes (I really needed a medical examination or treatment at least on one occasion) (1)
- No (I did not need any medical examination or treatment) (2)

Skip To: 96 If Was there any time during the past 12 months when you really needed a medical examination or treatment...=Yes (I really needed a medical examination or treatment at least on one occasion)

Skip To: 98 If Was there any time during the past 12 months when you really needed a medical examination or treatment...=No (I did not need any medical examination or treatment)

Did you have a medical examination or treatment each time you really needed it during the past 12 months?

- Yes (I had a medical examination or treatment each time I needed) (1)
- No (there was at least one occasion when I did not have a medical examination or treatment) (2)

Skip To: 97 If Did you have a medical examination or treatment each time you really needed it during the past 12...=No (there was at least one occasion when I did not have a medical examination or treatment)

Skip To: 98 If Did you have a medical examination or treatment each time you really needed it during the past 12...=Yes (I had a medical examination or treatment each time I needed)

What was the main reason why you did not have a medical examination or treatment?

- I could not afford to (too expensive and/or not covered by the insurance) (1)
 - The waiting list or waiting time for an appointment was too long (2)
 - I could not take time off because of work or had to take care for children/others (3)
 - It was too far to travel/I had no means of transportation (4)
 - Fear of doctor, hospitals, examination, treatment (5)
 - Didn't know any good doctor or specialist (6)
 - Wanted to wait and see if the problem got better (7)
 - Because of language difficulties with English (8)
 - I was refused treatment/I was unfairly treated because of my ethnic or immigrant background / Roma background / ethnic minority background (9)
 - It was not possible to choose a male or female doctor (10)
 - Other, please specify (11)
-

In the past 5 years, have you used any healthcare services? For example, have you seen a doctor, nurse, dentist, visited a hospital, an emergency clinic or medical centre?

Yes (1)

No (2)

Skip To: End of Block If In the past 5 years, have you used any healthcare services? For example, have you seen a doctor,...=No

Skip To: 99 If In the past 5 years, have you used any healthcare services? For example, have you seen a doctor,...=Yes

When using healthcare services in the past 5 years or since you have been in the UK, have you felt discriminated against for any of the following reasons? (Tick all that apply)

Skin colour (1)

Ethnic or immigrant background / ethnic origin (2)

Religion or religious beliefs (3)

Age (such as being too young or too old) (4)

Sex/gender (such as being a man or a woman) (5)

Disability (6)

Sexual orientation (such as being gay, lesbian or bisexual) (7)

Other (please specify) (8)

I haven't felt discriminated against on any ground when using healthcare services in the past 5 years (9)

Skip To: 100 If When using healthcare services in the past 5 years or since you have been in the UK, have you fel...=Skin colour

Skip To: 100 If When using healthcare services in the past 5 years or since you have been in the UK, have you fel...=Ethnic or immigrant background / ethnic origin

Skip To: 100 If When using healthcare services in the past 5 years or since you have been in the UK, have you fel...=Religion or religious beliefs

Skip To: End of Block If When using healthcare services in the past 5 years or since you have been in the UK, have you fel...=Age (such as being too young or too old)

Skip To: End of Block If When using healthcare services in the past 5 years or since you have been in the UK, have you fel...=Sex/gender (such as being a man or a woman)

Skip To: End of Block If When using healthcare services in the past 5 years or since you have been in the UK, have you fel...=Disability

Skip To: End of Block If When using healthcare services in the past 5 years or since you have been in the UK, have you fel...=Sexual orientation (such as being gay, lesbian or bisexual)

Skip To: End of Block If When using healthcare services in the past 5 years or since you have been in the UK, have you fel...=Other (please specify)

Skip To: End of Block If When using healthcare services in the past 5 years or since you have been in the UK, have you fel...=I haven't felt discriminated against on any ground when using healthcare services in the past 5 years

When was the LAST TIME you felt discriminated against because of your: ethnic or immigrant background / Roma background / ethnic minority background when using healthcare services?

- Sometime in the past 12 months (1)
- Sometime in the past 5 years, but not in the past 12 months (2)
- More than 5 years ago (3)

Skip To: 101 If When was the LAST TIME you felt discriminated against because of your: ethnic or immigrant backgr...=Sometime in the past 12 months

Skip To: 102 If When was the LAST TIME you felt discriminated against because of your: ethnic or immigrant backgr...=Sometime in the past 5 years, but not in the past 12 months

Skip To: 102 If When was the LAST TIME you felt discriminated against because of your: ethnic or immigrant backgr...=More than 5 years ago

HOW MANY TIMES has this happened to you in the past 12 months when using health care services?

- Once (1)
 - Twice (2)
 - Three times (3)
 - Four times (4)
 - Five times (5)
 - More than 10 times (6)
 - All the time (daily) (7)
-

LAST TIME you felt discriminated against because of your ethnic or immigrant background / Roma background / ethnic minority background when using healthcare services, in your opinion, what were the main reasons for this?

- My skin colour/my physical appearance (1)
 - My first or last name (2)
 - My accent/the way I speak English (3)
 - The way I am dressed (such as wearing a headscarf/turban) (4)
 - The reputation of the neighbourhood where I live (my address) (5)
 - My citizenship (6)
 - My country of birth (7)
 - Other reason (please specify): (8)
-

6.14. Appendix N – The Moral Foundation Questionnaire (Graham et al., 2011)

The next part of the study will ask you questions about how you take certain decisions: When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking? Please rate each statement using this scale:

(0)=not at all relevant (This consideration has nothing to do with my judgments of right and wrong);

(1)=not very relevant;

(2)=slightly relevant;

(3)=somewhat relevant;

(4)=very relevant;

(5)=extremely relevant (This is one of the most important factors when I judge right and wrong).

1. Whether or not someone suffered emotionally

(0)=not at all relevant (This consideration has nothing to do with my judgments of right and wrong);

(1)=not very relevant;

(2)=slightly relevant

(3)=somewhat relevant;

(4)=very relevant

(5)=extremely relevant (This is one of the most important factors when I judge right and wrong).

2. Whether or not some people were treated differently than others

- (0)=not at all relevant (This consideration has nothing to do with my judgments of right and wrong);
 - (1)=not very relevant;
 - (2)=slightly relevant
 - (3)=somewhat relevant;
 - (4)=very relevant
 - (5)=extremely relevant (This is one of the most important factors when I judge right and wrong).
-

3. Whether or not someone's action showed love for his or her country

- (0)=not at all relevant (This consideration has nothing to do with my judgments of right and wrong);
 - (1)=not very relevant;
 - (2)=slightly relevant
 - (3)=somewhat relevant;
 - (4)=very relevant
 - (5)=extremely relevant (This is one of the most important factors when I judge right and wrong).
-

4. Whether or not someone showed a lack of respect for authority

- (0)=not at all relevant (This consideration has nothing to do with my judgments of right and wrong);
 - (1)=not very relevant;
 - (2)=slightly relevant
 - (3)=somewhat relevant;
 - (4)=very relevant
 - (5)=extremely relevant (This is one of the most important factors when I judge right and wrong).
-

5. Whether or not someone violated standards of purity and decency

- (0)=not at all relevant (This consideration has nothing to do with my judgments of right and wrong);
 - (1)=not very relevant;
 - (2)=slightly relevant
 - (3)=somewhat relevant;
 - (4)=very relevant
 - (5)=extremely relevant (This is one of the most important factors when I judge right and wrong).
-

6. Whether or not someone was good at maths

- (0)=not at all relevant (This consideration has nothing to do with my judgments of right and wrong);
 - (1)=not very relevant;
 - (2)=slightly relevant
 - (3)=somewhat relevant;
 - (4)=very relevant
 - (5)=extremely relevant (This is one of the most important factors when I judge right and wrong).
-

7. Whether or not someone cared for someone weak or vulnerable

- (0)=not at all relevant (This consideration has nothing to do with my judgments of right and wrong);
 - (1)=not very relevant;
 - (2)=slightly relevant
 - (3)=somewhat relevant;
 - (4)=very relevant
 - (5)=extremely relevant (This is one of the most important factors when I judge right and wrong).
-

8. Whether or not someone acted unfairly

- (0)=not at all relevant (This consideration has nothing to do with my judgments of right and wrong);
 - (1)=not very relevant;
 - (2)=slightly relevant
 - (3)=somewhat relevant;
 - (4)=very relevant
 - (5)=extremely relevant (This is one of the most important factors when I judge right and wrong).
-

9. Whether or not someone did something to betray his or her group

- (0)=not at all relevant (This consideration has nothing to do with my judgments of right and wrong);
 - (1)=not very relevant;
 - (2)=slightly relevant
 - (3)=somewhat relevant;
 - (4)=very relevant
 - (5)=extremely relevant (This is one of the most important factors when I judge right and wrong).
-

10. Whether or not someone conformed to the traditions of society

- (0)=not at all relevant (This consideration has nothing to do with my judgments of right and wrong);
 - (1)=not very relevant;
 - (2)=slightly relevant
 - (3)=somewhat relevant;
 - (4)=very relevant
 - (5)=extremely relevant (This is one of the most important factors when I judge right and wrong).
-

11. Whether or not someone did something disgusting

- (0)=not at all relevant (This consideration has nothing to do with my judgments of right and wrong);
 - (1)=not very relevant;
 - (2)=slightly relevant
 - (3)=somewhat relevant;
 - (4)=very relevant
 - (5)=extremely relevant (This is one of the most important factors when I judge right and wrong).
-

12. Whether or not someone was cruel

- (0)=not at all relevant (This consideration has nothing to do with my judgments of right and wrong);
 - (1)=not very relevant;
 - (2)=slightly relevant
 - (3)=somewhat relevant;
 - (4)=very relevant
 - (5)=extremely relevant (This is one of the most important factors when I judge right and wrong).
-

13. Whether or not someone was denied his or her rights

- (0)=not at all relevant (This consideration has nothing to do with my judgments of right and wrong);
 - (1)=not very relevant;
 - (2)=slightly relevant
 - (3)=somewhat relevant;
 - (4)=very relevant
 - (5)=extremely relevant (This is one of the most important factors when I judge right and wrong).
-

14. Whether or not someone showed a lack of loyalty

- (0)=not at all relevant (This consideration has nothing to do with my judgments of right and wrong);
 - (1)=not very relevant;
 - (2)=slightly relevant
 - (3)=somewhat relevant;
 - (4)=very relevant
 - (5)=extremely relevant (This is one of the most important factors when I judge right and wrong).
-

15. Whether or not an action caused chaos or disorder

- (0)=not at all relevant (This consideration has nothing to do with my judgments of right and wrong);
 - (1)=not very relevant;
 - (2)=slightly relevant
 - (3)=somewhat relevant;
 - (4)=very relevant
 - (5)=extremely relevant (This is one of the most important factors when I judge right and wrong).
-

16. Whether or not someone acted in a way that God would approve of

- (0)=not at all relevant (This consideration has nothing to do with my judgments of right and wrong);
- (1)=not very relevant;
- (2)=slightly relevant
- (3)=somewhat relevant;
- (4)=very relevant
- (5)=extremely relevant (This is one of the most important factors when I judge right and wrong).

Please read the following sentences and indicate your agreement or disagreement:

(0)=strongly disagree(1)=moderately disagree(2)=slightly disagree(3)=slightly agree(4)=moderately agree(5)=strongly agree

17. Compassion for those who are suffering is the most crucial virtue.

- (0)=strongly disagree
 - (1)=moderately disagree
 - (2)=slightly disagree
 - (3)=slightly agree
 - (4)=moderately agree
 - (5)=strongly agree
-

18. When the government makes laws, the number one principle should be ensuring that everyone is treated fairly.

- (0)=strongly disagree
 - (1)=moderately disagree
 - (2)=slightly disagree
 - (3)=slightly agree
 - (4)=moderately agree
 - (5)=strongly agree
-

19. I am proud of my country's history.

- (0)=strongly disagree
 - (1)=moderately disagree
 - (2)=slightly disagree
 - (3)=slightly agree
 - (4)=moderately agree
 - (5)=strongly agree
-

20. Respect for authority is something all children need to learn.

- (0)=strongly disagree
 - (1)=moderately disagree
 - (2)=slightly disagree
 - (3)=slightly agree
 - (4)=moderately agree
 - (5)=strongly agree
-

21. People should not do things that are disgusting, even if no one is harmed.

- (0)=strongly disagree
 - (1)=moderately disagree
 - (2)=slightly disagree
 - (3)=slightly agree
 - (4)=moderately agree
 - (5)=strongly agree
-

22. It is better to do good than to do bad.

- (0)=strongly disagree
 - (1)=moderately disagree
 - (2)=slightly disagree
 - (3)=slightly agree
 - (4)=moderately agree
 - (5)=strongly agree
-

23. One of the worst things a person could do is hurt a defenseless animal.

- (0)=strongly disagree
 - (1)=moderately disagree
 - (2)=slightly disagree
 - (3)=slightly agree
 - (4)=moderately agree
 - (5)=strongly agree
-

24. Justice is the most important requirement for a society.

- (0)=strongly disagree
 - (1)=moderately disagree
 - (2)=slightly disagree
 - (3)=slightly agree
 - (4)=moderately agree
 - (5)=strongly agree
-

25. People should be loyal to their family members, even when they have done something wrong.

- (0)=strongly disagree
 - (1)=moderately disagree
 - (2)=slightly disagree
 - (3)=slightly agree
 - (4)=moderately agree
 - (5)=strongly agree
-

26. Men and women each have different roles to play in society.

- (0)=strongly disagree
 - (1)=moderately disagree
 - (2)=slightly disagree
 - (3)=slightly agree
 - (4)=moderately agree
 - (5)=strongly agree
-

27. I would call some acts wrong on the grounds that they are unnatural.

- (0)=strongly disagree
 - (1)=moderately disagree
 - (2)=slightly disagree
 - (3)=slightly agree
 - (4)=moderately agree
 - (5)=strongly agree
-

28. It can never be right to kill a human being.

- (0)=strongly disagree
 - (1)=moderately disagree
 - (2)=slightly disagree
 - (3)=slightly agree
 - (4)=moderately agree
 - (5)=strongly agree
-

29. I think it's morally wrong that rich children inherit a lot of money while poor children inherit nothing.

- (0)=strongly disagree
 - (1)=moderately disagree
 - (2)=slightly disagree
 - (3)=slightly agree
 - (4)=moderately agree
 - (5)=strongly agree
-

30. It is more important to be a team player than to express oneself.

- (0)=strongly disagree
 - (1)=moderately disagree
 - (2)=slightly disagree
 - (3)=slightly agree
 - (4)=moderately agree
 - (5)=strongly agree
-

31. If I were a soldier and disagreed with my commanding officer's orders, I would obey anyway because that is my duty.

- (0)=strongly disagree
 - (1)=moderately disagree
 - (2)=slightly disagree
 - (3)=slightly agree
 - (4)=moderately agree
 - (5)=strongly agree
-

32. Chastity is an important and valuable virtue.

- (0)=strongly disagree
- (1)=moderately disagree
- (2)=slightly disagree
- (3)=slightly agree
- (4)=moderately agree
- (5)=strongly agree

6.15. Appendix O – MHLC Form A (Wallston et al., 1978)

This part of the study will ask you questions about how you think about health in general.

Each item below is a belief statement about your health with which you may agree or disagree. Beside each statement is a scale which ranges from strongly disagree to strongly agree. For each item we would like you to tick the option that represents the extent to which you agree or disagree with that statement. Please make sure that you answer EVERY ITEM and that you tick ONLY ONE option per item. This is a measure of your personal beliefs; there are no right or wrong answers.

1. If I get sick, it is my own behaviour which determines how soon I get well again.

- Strongly disagree
 - Moderately disagree
 - Slightly disagree
 - Slightly agree
 - Moderately agree
 - Strongly agree
-

2. No matter what I do, if I am going to get sick, I will get sick.

- Strongly disagree
 - Moderately disagree
 - Slightly disagree
 - Slightly agree
 - Moderately agree
 - Strongly agree
-

3. Having regular contact with my physician is the best way for me to avoid illness

- Strongly disagree
 - Moderately disagree
 - Slightly disagree
 - Slightly agree
 - Moderately agree
 - Strongly agree
-

4. Most things that affect my health happen to me by accident.

- Strongly disagree
 - Moderately disagree
 - Slightly disagree
 - Slightly agree
 - Moderately agree
 - Strongly agree
-

5. Whenever I don't feel well, I should consult a medically trained professional

- Strongly disagree
 - Moderately disagree
 - Slightly disagree
 - Slightly agree
 - Moderately agree
 - Strongly agree
-

6. I am in control of my health.

- Strongly disagree
 - Moderately disagree
 - Slightly disagree
 - Slightly agree
 - Moderately agree
 - Strongly agree
-

7. My family has a lot to do with my becoming sick or staying healthy.

- Strongly disagree
 - Moderately disagree
 - Slightly disagree
 - Slightly agree
 - Moderately agree
 - Strongly agree
-

8. When I get sick, I am to blame.

- Strongly disagree
 - Moderately disagree
 - Slightly disagree
 - Slightly agree
 - Moderately agree
 - Strongly agree
-

9. Luck plays a big part in determining how soon I will recover from an illness.

- Strongly disagree
 - Moderately disagree
 - Slightly disagree
 - Slightly agree
 - Moderately agree
 - Strongly agree
-

10. Health professionals control my health.

- Strongly disagree
 - Moderately disagree
 - Slightly disagree
 - Slightly agree
 - Moderately agree
 - Strongly agree
-

11. My good health is largely a matter of good fortune.

- Strongly disagree
 - Moderately disagree
 - Slightly disagree
 - Slightly agree
 - Moderately agree
 - Strongly agree
-

12. The main thing which affects my health is what I myself do.

- Strongly disagree
 - Moderately disagree
 - Slightly disagree
 - Slightly agree
 - Moderately agree
 - Strongly agree
-

13. If I take care of myself, I can avoid illness.

- Strongly disagree
 - Moderately disagree
 - Slightly disagree
 - Slightly agree
 - Moderately agree
 - Strongly agree
-

14. Whenever I recover from an illness, it's usually because other people (for example, doctors, nurses, family, friends) have been taking good care of me.

- Strongly disagree
 - Moderately disagree
 - Slightly disagree
 - Slightly agree
 - Moderately agree
 - Strongly agree
-

15. No matter what I do, I'm likely to get sick.

- Strongly disagree
 - Moderately disagree
 - Slightly disagree
 - Slightly agree
 - Moderately agree
 - Strongly agree
-

16. If it's meant to be, I will stay healthy.

- Strongly disagree
 - Moderately disagree
 - Slightly disagree
 - Slightly agree
 - Moderately agree
 - Strongly agree
-

17. If I take the right actions, I can stay healthy.

- Strongly disagree
 - Moderately disagree
 - Slightly disagree
 - Slightly agree
 - Moderately agree
 - Strongly agree
-

18. Regarding my health, I can only do what my doctor tells me to do.

- Strongly disagree
- Moderately disagree
- Slightly disagree
- Slightly agree
- Moderately agree
- Strongly agree

6.16. Appendix P: Vignettes

You will now be presented with six short vignettes about healthcare.

Please, tick the statement that best reflects your views. After being presented with these statements, you will have the opportunity to comment in a text box. Please, let us know if none of the statements represented your views or if you have anything else to add.

Vignette 1

The common causes for liver transplants are liver cell cancer, viral hepatitis, and alcohol-related liver disease. Livers available for organ donations are limited and many people become increasingly unwell and eventually pass away while on the waiting list. A middle-aged person has been drinking heavily since their late 20s. Over the years, their health has deteriorated, and they have been diagnosed with Alcohol-Related Liver Disease. They need a liver transplant urgently and have now been abstinent from alcohol for three months. Do you think that this person should be given priority on the waiting list?

- People with alcohol dependency problems are often emotionally and economically vulnerable, therefore, they should have priority over less vulnerable people. (1)
- This person should be prioritised based on whether this is the most cost-efficient option for a better quality of life. For example, if giving them access to a new liver now will reduce future healthcare costs. (2)
- This person should be prioritised based on whether they have contributed to the system through taxation, regardless of the cause of their disease. (3)
- The person is unwell because they have been abusing alcohol and therefore, should be given lower priority for receiving a new liver on the NHS. (4)

Please tell us if these statements did not represent your views or if you would like to add anything.

Vignette 2

Self-harming means that someone is intentionally hurting or injuring themselves. Self-harm may represent a way of coping with or expressing feelings and emotions that are very strong or overwhelming. There are many behaviours included in the term 'self-harming' and it is estimated that at least 6% of English adults may have self-harmed at least once before. A young person has been self-harming with boiling water for the last two years. They have presented multiple times to A&E and their injuries have required increasingly extensive treatment. The team is discussing whether it is helpful to keep on offering skin grafts, which are expensive. The team has been discussing whether they should consider cheaper treatment options, even though they are likely to leave more scarring because the person self-harms regularly at the same place. What are your thoughts on the sort of treatment that should be offered?

- If this young person is economically and emotionally vulnerable then they should get access to treatment that will facilitate less scarring, regardless of the cost to the NHS. (1)
- The person should be offered skin grafts only if this treatment reduces future costs to the NHS, for example, if better healing helps them to stop harming themselves or needing services in the future. (2)
- This person should have access to the most expensive treatment based on whether they have contributed to the system through taxation, regardless of the way the injury happened. (3)
- The person is unwell because they have been hurting themselves and therefore, should not be prioritised for expensive treatments through the NHS. (4)

Please tell us if these statements did not represent your views or if you would like to add anything.

Vignette 3

In the UK, non-residents (those who do not have indefinite right to remain) are entitled to emergency care only. Other costs are charged to the individual or sometimes to their country of origin. This process can be lengthy with delays in bills being paid and treatment administered. A person presented to A&E after a serious road accident. They sustained multiple fractures, experienced loss of consciousness and were admitted to intensive care for treatment. As part of their care, pre-existing anxiety and depression issues, that would benefit from psychological treatment, were identified. However, the person is not British and does not appear to have the valid right to remain paperwork. The team is being asked to report to the department of the hospital that deals with patients who are not UK residents. Do you think that access to psychological care should be offered to this patient?

- Immigrants are often emotionally and economically vulnerable, therefore they should have priority over less vulnerable people. (1)
- This person should be prioritised based on whether this is the most cost-efficient option. For example, if giving them access to psychological care now will prevent their mental health deteriorating and thereby reducing future costs (e.g. the person becomes extremely distressed and needs extensive input from mental health services). (2)
- This person should be offered additional care based on whether they have contributed to the system through taxation, regardless of their immigration status. (3)
- This person was not born in the UK and therefore, their health needs should not be prioritised. (4)

Please tell us if these statements did not represent your views or if you would like to add anything.

Vignette 4

Pre-exposure prophylaxis (PrEP) is a course of antiretroviral drugs taken by people who do not have HIV but are at risk of contracting it. This is a medication that is taken every day and reduces the risk of contracting HIV through sex by up to 90%. The cost of the medication is approximately £330 a month. A couple have been in a non-monogamous (i.e. they are not exclusive and have sex with other people) same-sex relationship for the last 5 years and are both considered as high-risk for contracting HIV. They are considering PrEP. Do you think this couple should be offered this drug on the NHS?

- This couple may have experienced discrimination because of their lifestyle and therefore, reducing health risks through this medication is essential to reducing potential emotional vulnerability associated with experiencing discrimination. (1)
- These patients should be prioritised based on whether this is the most cost-efficient option. For example, if giving them access to this drug now will reduce future healthcare costs through reducing their risks of contracting HIV. (2)
- These patients should be given access to this drug based on whether they have contributed to the system through taxation, regardless of the cause of their disease. (3)
- These patients are choosing to engage in these behaviours and therefore, funding preventive and expensive treatments for them through the NHS should not be prioritised. (4)

Please tell us if these statements did not represent your views or if you would like to add anything.

Vignette 5

Accessing mental health treatments, such as psychology can be a lengthy process. While the NHS aims to arrange a first appointment (an assessment) within an 18-week period, it can take another six months to two years to access talking therapy. A person in their 30s has been using mental health services for the last 20 years. They have received short-term and long-term mental health treatment including psychotherapy and psychiatric in person admissions. They have been prescribed different psychiatric medications; however, they still often experience long periods of low mood during which they feel suicidal, withdrawn from others, spend a lot of time in bed, and are unable to look after themselves. They also have difficulties maintaining relationships with others. Although they have been in paid employment in the past, they have not been able to maintain long-term employment. Do you think that this person should be offered further treatment (new therapies as well as those already tried)?

- People with long-standing mental health difficulties are often emotionally and economically vulnerable, therefore, they should have priority in accessing support over less vulnerable people. (1)
- This person should be prioritised based on whether this is the most cost-efficient option for ensuring adequate living standards. For example, if giving them continuous access to mental health services reduce further health costs associated with suicide attempts or self-harm. (2)
- This person should be prioritised based on whether they have contributed to the system through taxation, regardless of their mental health needs. (3)
- The patient's willingness to change should be assessed. If a person is making poor life-choices, they should be lower on the priority list for NHS treatments. (4)

Please tell us if these statements did not represent your views or if you would like to add anything.

Vignette 6

Most people infected with the coronavirus (COVID-19) will recover without requiring special treatment. However, older people, and those with underlying medical problems are more likely to develop serious illness. High rates of infection have resulted in shortages of healthcare resources, including intensive care beds and ventilators. A person in their late sixties is brought in via A&E with severe breathing difficulties and tests positive for the coronavirus. The person reports attending a large BBQ party at their neighbours' house (during lockdown, when social gatherings were not allowed). The person has a range of pre-existing conditions that makes them more vulnerable to not surviving the virus. There is only one intensive care bed with access to a ventilator left at this hospital and it is likely that this ventilator will be needed by other people with COVID-19 in the coming hours. Should this person be prioritised?

- This person may have lower survival chances without such care and therefore should be admitted to an intensive care bed with ventilator if they are most vulnerable (1)
 - If this person has low survival chances, it may be useless to expend scarce resources on them and another person should be prioritised. The person with higher survival chances should have access to a ventilator in order to maximise resources. (2)
 - If the person has contributed to the system (through tax for example), then they should have access to a ventilator. (3)
 - It appears that the person has not respected the lockdown restrictions and social distancing and therefore they should not be prioritised for access to a ventilator. (4)
-

Please tell us if these statements did not represent your views or if you would like to add anything.

6.17. Appendix Q – Ethnicities, Religion and Sexuality as reported in the survey (duplicates were removed)

| | |
|---|---------------------------------|
| Ethnicity | Mixed white and Asian |
| White British | Black British Caribbean |
| Mixed white | Black British |
| White | good |
| British Indian | British Pakistani |
| White English | African British |
| Mixed race | Black |
| Human being | White English/Scottish |
| Asian British | Mixed heritage |
| White Other | Chinese |
| White European | White European / POC |
| White Irish | Black African Caribbean |
| Latin American | Turkish |
| mixed black and white | White African |
| European | White British/Ashkenazi Jewish |
| any other White background | British Chinese |
| Mixed Asian-Black | Arab/MENA |
| Mixed | Mixed white and 'other' |
| British Asian | Métis |
| Mixed White/Black African | White Canadian |
| Caucasian | Mixed race black/Indian |
| white Irish/English | Chinese |
| Mixed - Indian/White | Mixed heritage South African |
| Bangladeshi | Asian |
| White Scottish | White Australian |
| Sri Lankan | Moonbeam white British |
| White mixed (British/German) | British North African |
| White (in this country I am identified as 'White-Other'). | Mixed (White / Black Caribbean) |
| mixed - white British and Indian | Mixed White/Black African |
| African | White and black caribbean |
| White British/Jewish | mixed black and white |
| | British Pakistani |

Indian
White African & Middle Eastern
Arab
Black African
Mixed background
Anglo Saxon, Scandinavian.

Mixed; Asian and European
Pink
Scottish (white)
British Turkish
White Scottish

Religions

In addition to the option proposed, the following religions were given by participants:

Catholic

Sikhism

C of E

A mix of religion with parents from different backgrounds x 4 (nod etaild given for anonymity purpose)

Roman Catholic

Religious parents but not really religious

Greek orthodox

Jewish/Agnostic

Jewish family but not practicing

Irreligious

Teist

Pagan

Muslim agnostic

Christian values, no religion

Spiritual and religious
compassion

Wiccan

Rastafarian

Somewhat Christian

Pagan

Pantheist/pagan.

Non practicing Muslim

Sexual Orientation

Straight

Heterosexual

Lesbian

Gay

Hetero

NA

Bisexual

Queer or Lesbian

Bisexual

Queer or Lesbian

Asexual

Pansexual

Heterosexual - polyamorous

queer

Pan

Questioning

Heterosexual but not interested in relationships

Not your business.

Panromantic/Pansexual

flexible

We are all on one continuum

I don't know

Unsure

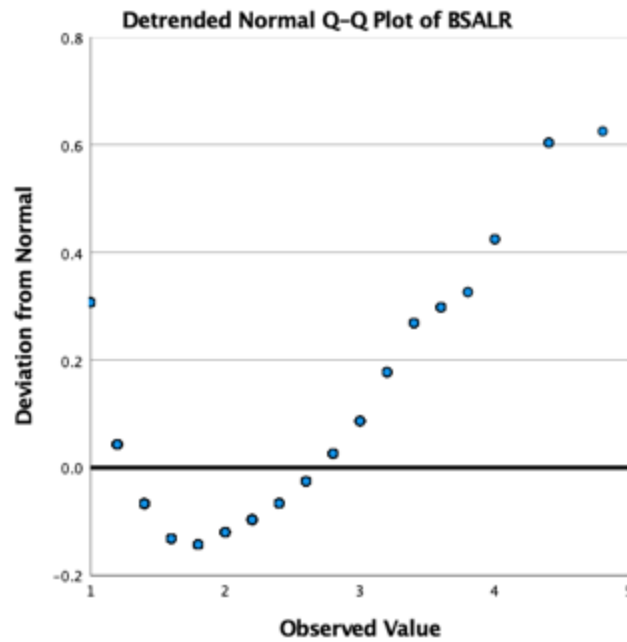
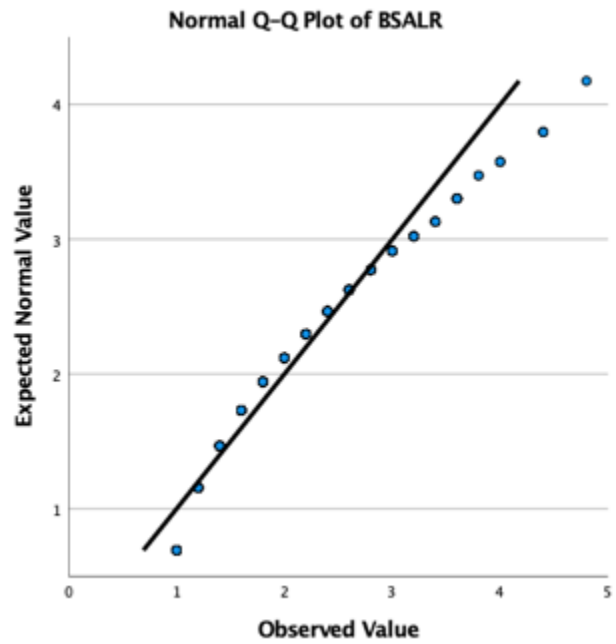
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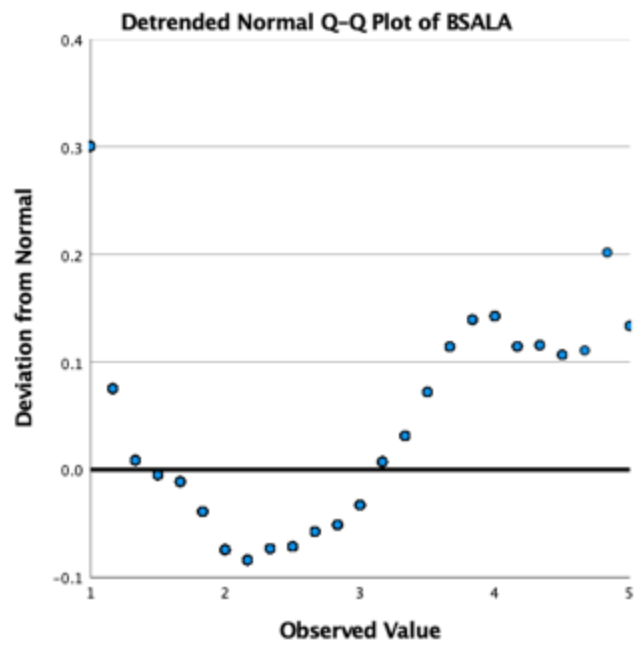
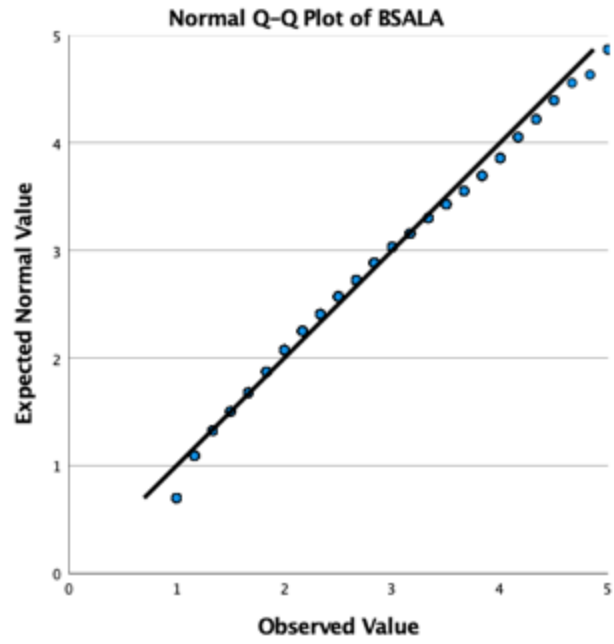
A'sexual

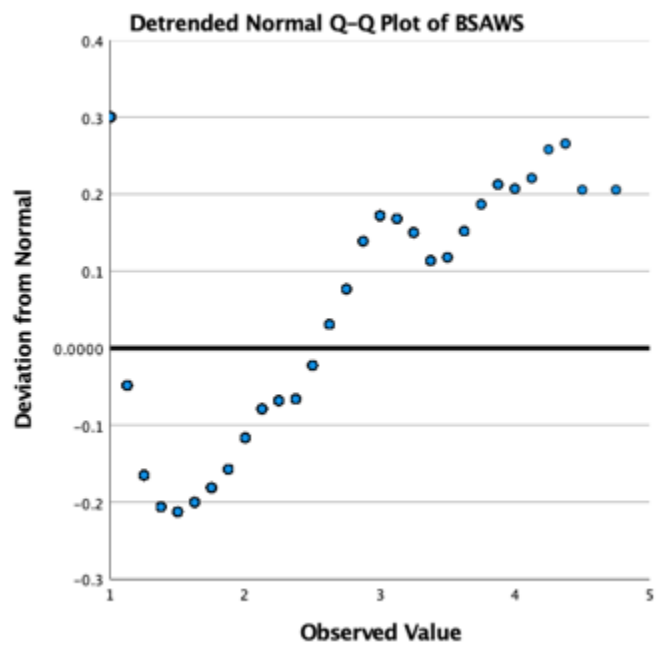
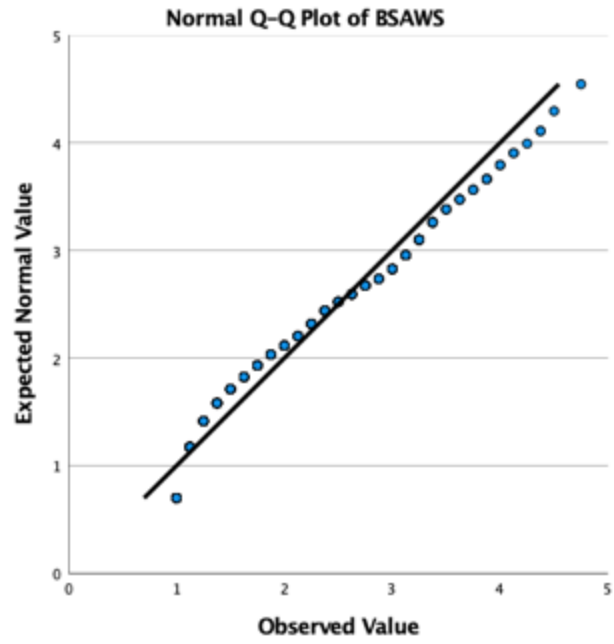
Hetero but everyone is a bit gay

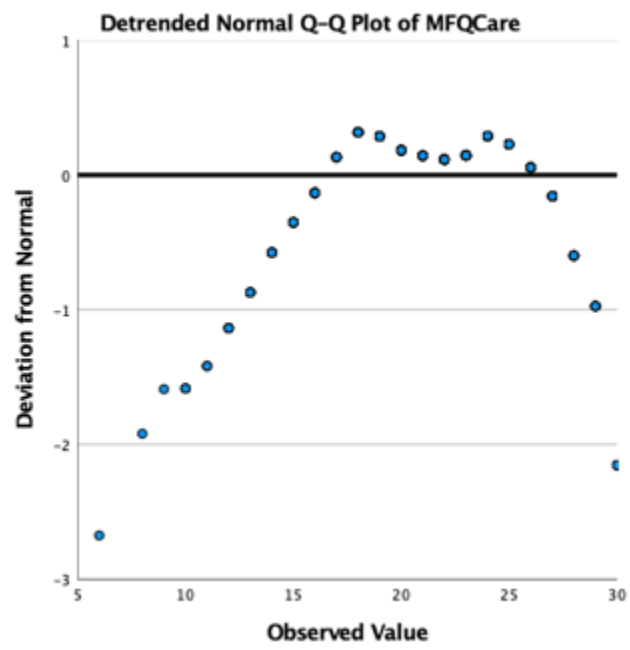
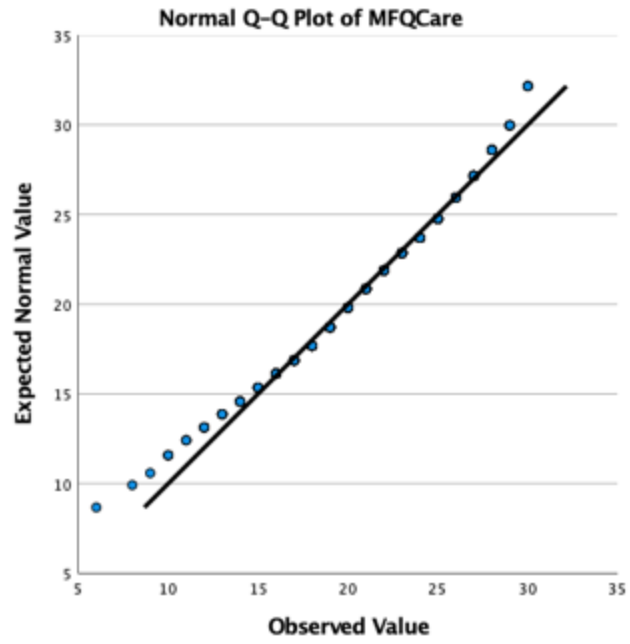
I wouldn't describe it

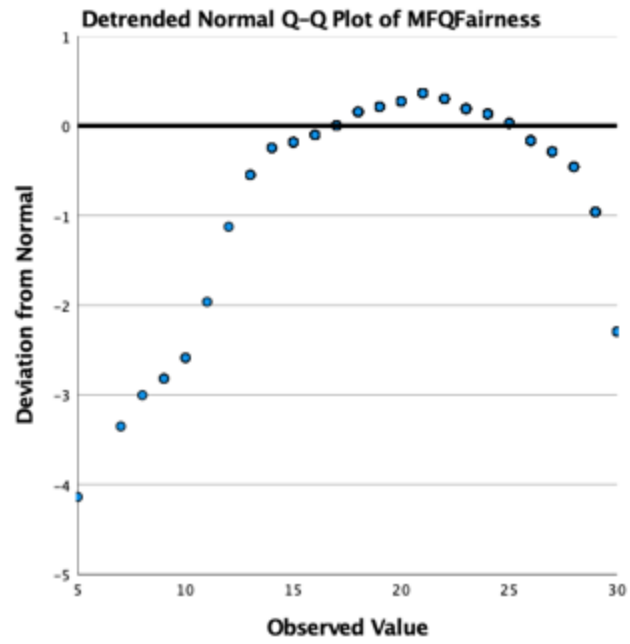
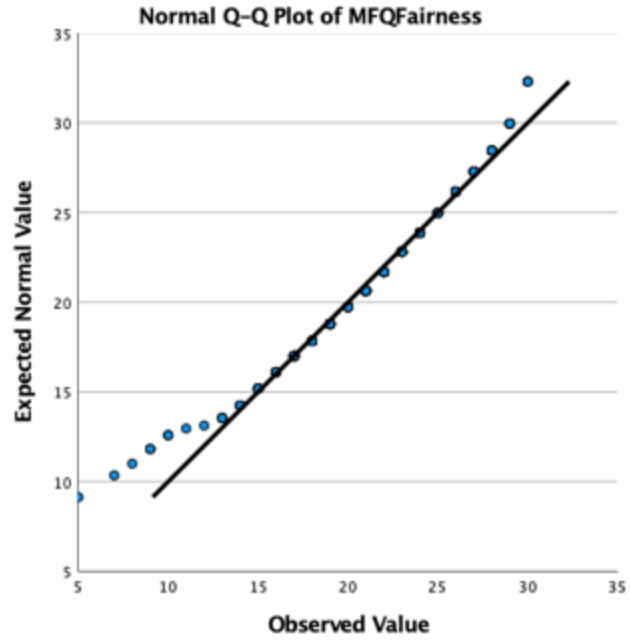
6.18. Appendix R – Q-Q Plots for questionnaires subscales (BSA, MFQ, MHLC)

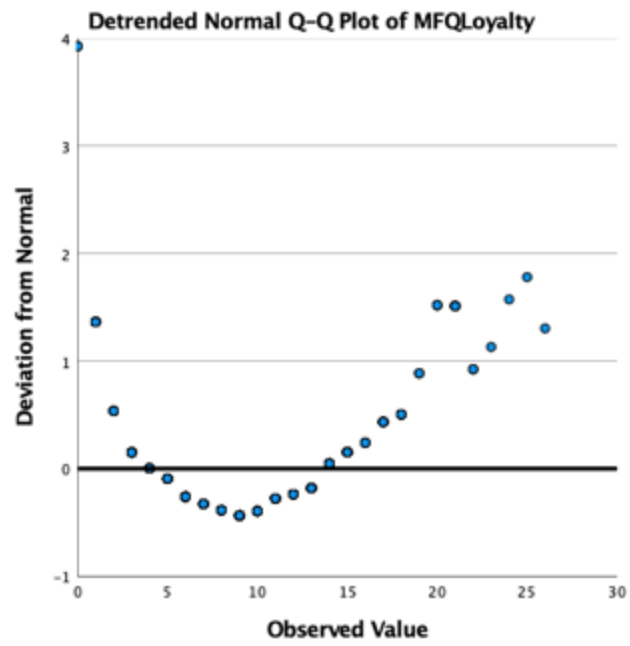
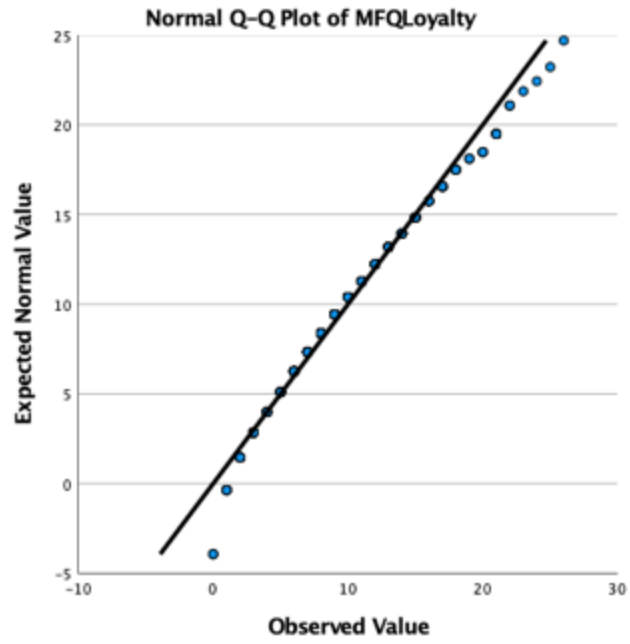


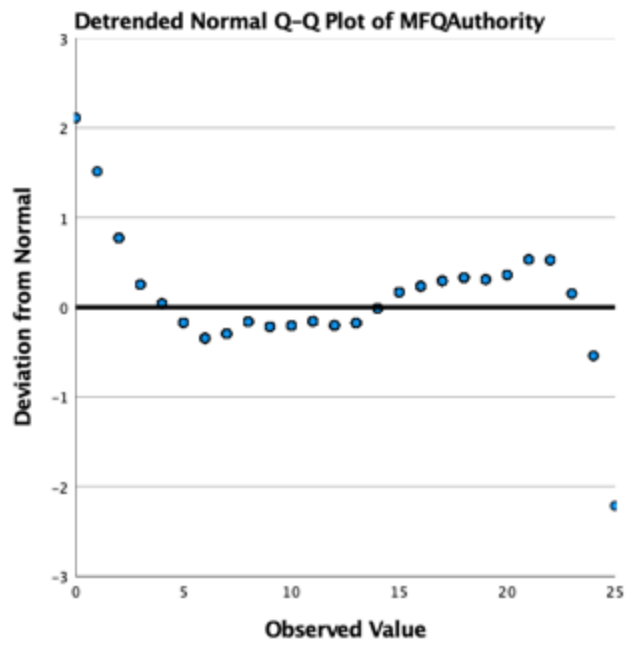
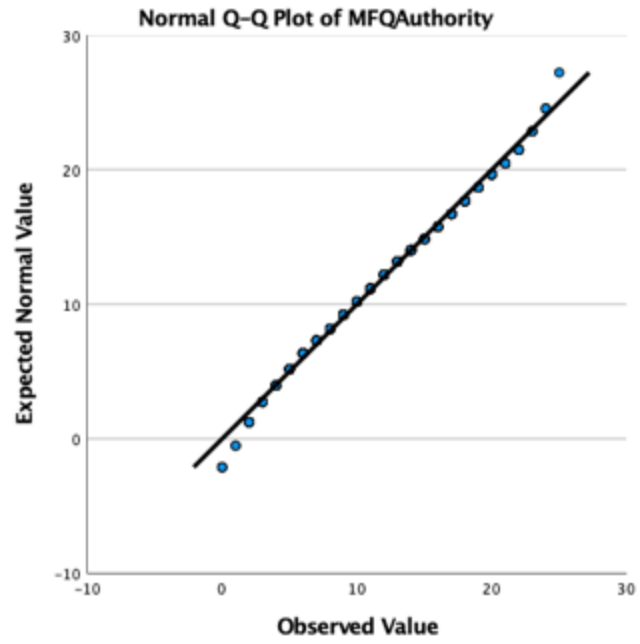


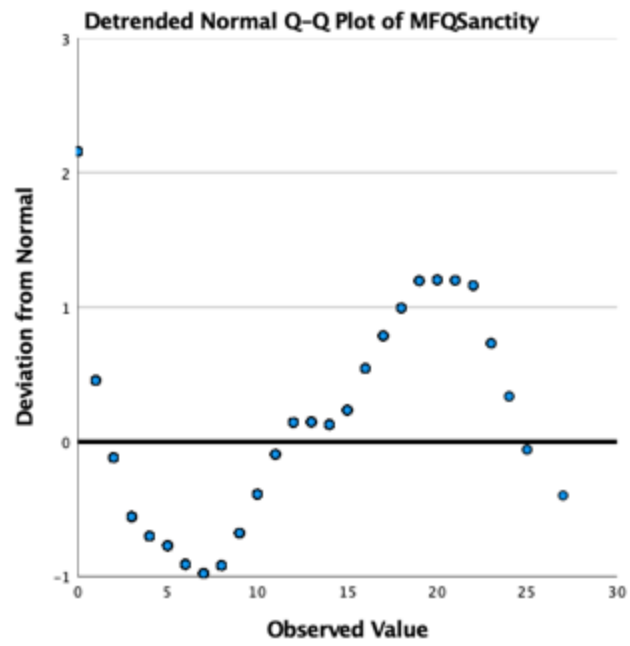
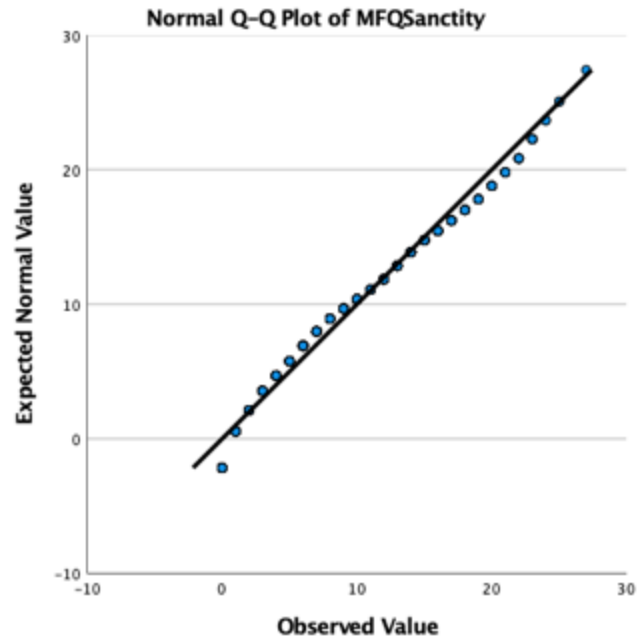


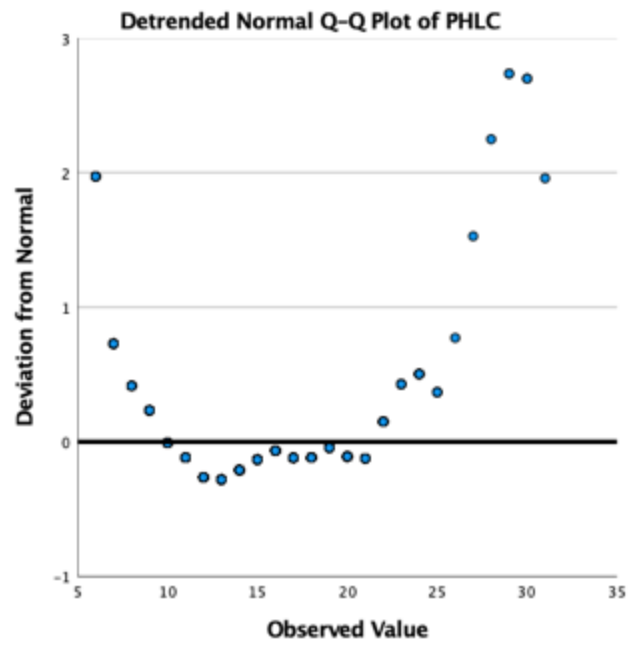
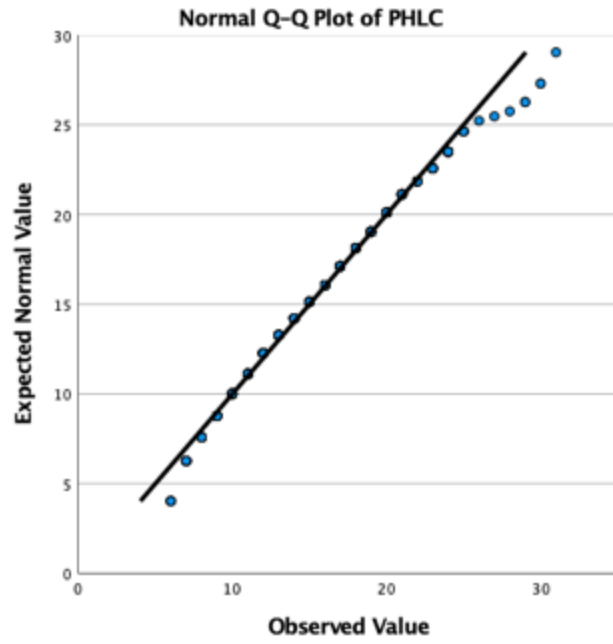


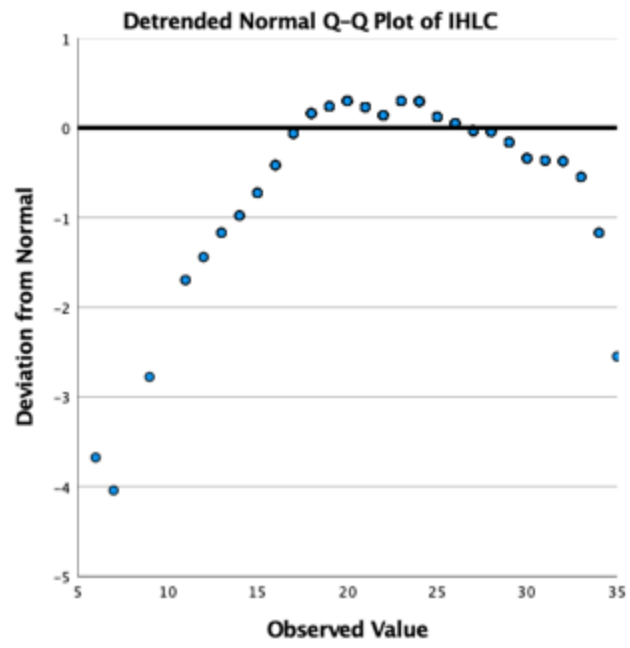
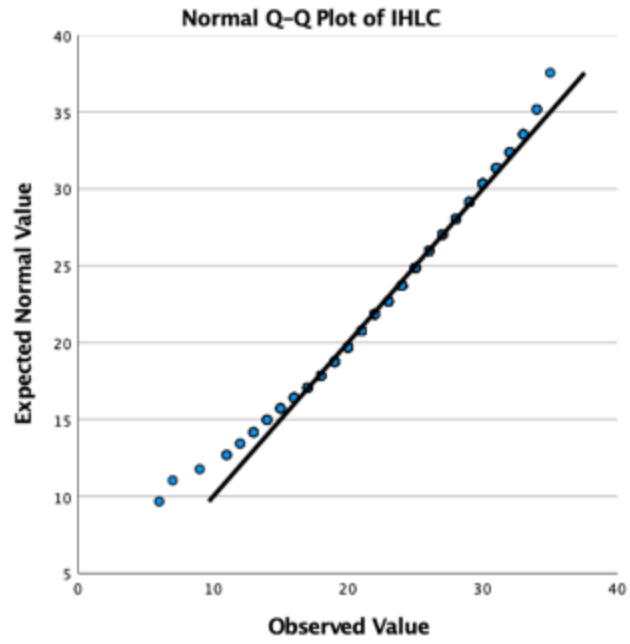


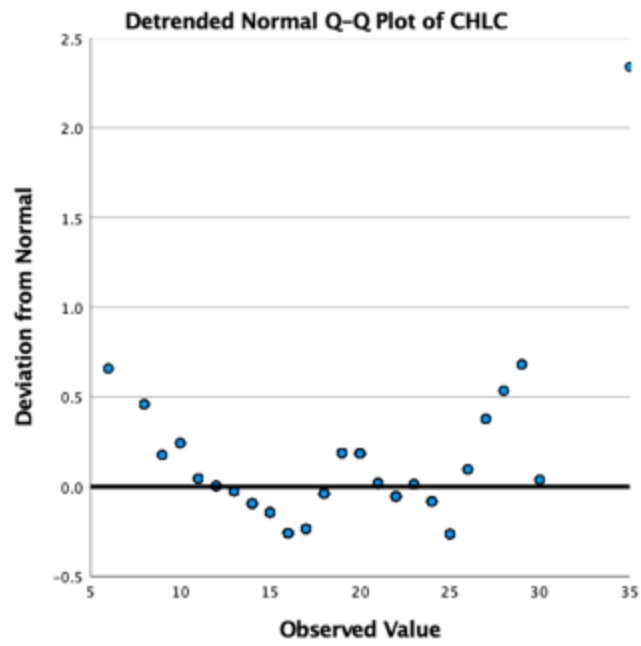
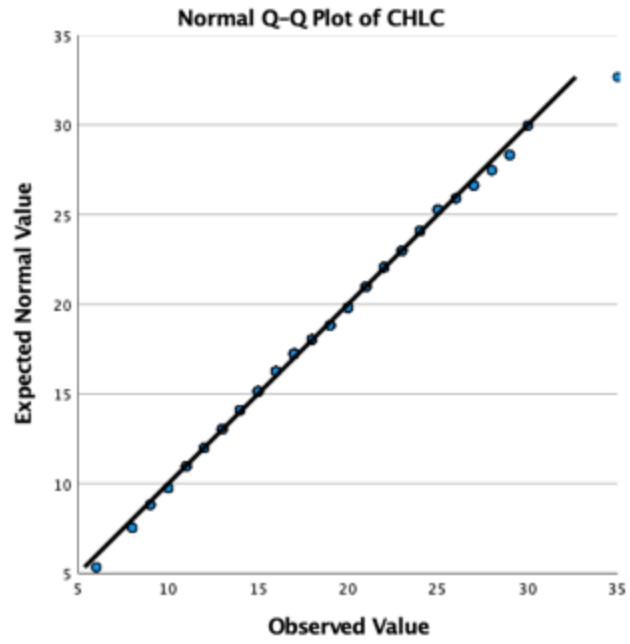












6.19. Appendix S – Additional details about demographic category tables

Categories merged into larger groups for analysis purposes

- Genders were grouped in Male/Female categories;
- Country of origin were grouped as 'UK' or 'Other' categories;
- Ethnicity were grouped in 'White', 'Black, Asian, Arab and mixed', 'Missing/Prefers not to say' categories;
- Sexual orientation were grouped as 'heterosexual', 'LGBTQA+' or 'missing';
- Religions were grouped as 'religious' or 'not religious';
- Education levels were grouped in 'up till end of highschool', 'currently in or completed college', 'currently in or completed postgraduate studies) categories;
- Job types were grouped in 'General', 'Health and Social Care', 'Stay at home, student, parent and retired' categories;
- Social mobility categories comparison were reduced from 1 to 10 to 1 to 5;
- Health status categories was grouped in good/fair/bad;
- Political parties were grouped for analysis in the following categories 'Conservatives/Brexit Party'; 'Labour'; 'Green Party'; 'Other' and 'None'.

'Other' reasons for discrimination in health services

- Mental health x 7,
- accent x 2,
- professional background,
- class,
- substance misuse x 3,
- overstretch services,
- encouraged to have private care in home-country,
- appearing too well-off for mental health,
- refused contraception by catholic doctor,
- lack of awareness of a condition,
- lifestyle choices,
- spouse ethnicity,
- Private/NHS care x 2,
- Sexuality other than included in the question,
- Weight x 4

6.20. Appendix T: Chi-Square of Association

Table 13

Chi-Square of Association for Personal Factors and scores on vignettes

| Characteristics | V1 | V2 | V3 | V4 | V5 | V6 |
|--|--|--|--|--|---|---|
| Age | $\chi^2(9, 549)=4.56$, p=0.868; V=0.05 c | $\chi^2(9, 549)=11.53$, p=0.234, V=0.08** (FHFE=11.68, p=0.198) d | $\chi^2(9, 549)=25.79$, p=0.002, V=.125 a, c | $\chi^2(9, 549)=29.20$, p<0.001, V=0.133 a, c | $\chi^2(9, 549)=28.66$, p<0.001, V=.132 (FHFE=26,37, p<0.001) a, d, e | $\chi^2(9, 549)=22.75$, p=0.007, V=0.118 (FHFE=28,85, p=0.004) a, d |
| Gender | $\chi^2(3, 549)=3.11$, p=0.375; V=0.075 b | $\chi^2(3, 549)=0.94$, p=0.824, V=0.41 (FHFE=.880, p=.852) d | $\chi^2(3, 549)=3.54$, p=0.316, V=0.08, b | $\chi^2(3, 549)=3.51$, p=0.320, V=08, b | $\chi^2(3, 549)=2.59$, p=0.465 V=0.7, b | $\chi^2(3, 549)=1.21$, p=0.751 V=0.05, c |
| Birth Country | $\chi^2(3, 549)=7.51$, p=0.057; V=0.12, c | $\chi^2(3, 549)=1.45$, p=0.693; V=0.05 (FHFE=1.55, p=0.666) d | $\chi^2(3, 549)=4.04$, p=0.256; V=0.09 b | $\chi^2(3, 549)=10.01$, p=0.019; V=0.14*a,c | $\chi^2(3, 549)=2.60$, p=0.458; V=0.07, c | $\chi^2(3, 549)=2.19$, p=0.534; V=0.06, c |
| Education level (1- Up till completed high- school 2- Currently or completed college/uni 3/Currently of completed Post grad) | $\chi^2(6, 549)=12.51$, p=0.051; V=0.11 c | $\chi^2(6, 549)=9.52$, p=0.145; V=0.09, c | $\chi^2(6, 549)=21.02$, p=0.002; V=0.14 a, c | $\chi^2(6, 549)=5.90$, p=0.434; V=0.07c | $\chi^2(6, 549)=5.78$, p=0.440; V=0.07* (FHFE=6.31; p=353) d, e | $\chi^2(6, 549)=7.97$, p=0.234; V=0.09c |
| Ethnicity (1- White 2- Missing/PNTS 3- Black, Asian and mixed group) | $\chi^2(6, 549)=5.39$, p=0.495; V=0.07, c | $\chi^2(6, 549)=9.66$, p=0.140; V=0.09 4 (FHFE=9.27, p=0.144)d | $\chi^2(6, 549)=16.78$, p=0.010; V=0.12, a c | $\chi^2(6, 549)=20.90$, p=0.002; V=0.14, a, c | $\chi^2(6, 549)=8.86$, p=0.178; V=0.09 (FHFE=8.43, p=0.180)d | $\chi^2(6, 549)=5.92$, p=0.432;V=0.07* |
| Childhood: Religious Yes/No | $\chi^2(3, 549)=3.04$, p=0.385; V=0.07b | $\chi^2(3, 549)=1.86$, p=0.601; V=0.06b | $\chi^2(3, 549)=7.92$, p=0.046; V=0.12a,b | $\chi^2(3, 549)=5.49$, p=0.139; V=0.10 b | $\chi^2(3, 549)=8.00$, p=0.046; V=0.12, a, c | $\chi^2(3, 549)=4.34$, p=0.230; V=0.09 b, |

| | | | | | | |
|--|---|---|---|---|--|---|
| Currently Religious Yes/No | $\chi^2(3, 549)=10.28,$ p=0.016; V=0.14 a, b, | $\chi^2(3, 549)=5.34, p=0.149;$ V=0.10 b, | $\chi^2(3, 549)=9.15, p=0.027;$ V=0.13 a, b | $\chi^2(3, 549)=12.02,$ p=0.007; V=0.15 a,b | $\chi^2(3, 549)=5.69, p=0.128;$ V=0.10 c | $\chi^2(3, 549)=1.76, p=0.628;$ V=0.63 c |
| Sexuality Heterosexual/ other/ miss- ing | $\chi^2(6, 549)=8.32,$ p=0.215; V=0.09, c | $\chi^2(6, 549)=6.19, p=0.403;$ V=0.08 (FHFE=5.90, p=0.429) d | $\chi^2(6, 549)=6.40, p=0.380;$ V=0.08, b | $\chi^2(6, 549)=14.70,$ p=0.023; V=0.12a,c | $\chi^2(6, 549)=8.37, p=0.212;$ V=0.09, c | $\chi^2(6, 549)=1.90, p=0.929$ V=0.05, c |
| Disability Yes/no | $\chi^2(3, 549)=4.84,$ p=0.182; V=0.09c | $\chi^2(3, 549)=1.21, p=0.751;$ V=0.05, (FHFE=.868, p=0.848). | $\chi^2(3, 549)=5.26, p=0.154;$ V=0.10c | $\chi^2(3, 549)=9.34, p=0.026;$ V=0.13a, c | $\chi^2(3, 549)=6.20, p=0.102;$ V=0.11, (FHFE=5.48, p=0.145) d,e | $\chi^2(3, 549)=6.53, p=0.088$ V=0.10c |

a + Bold=significant with $p < 0.05$

b=means no empty cells

c=empty cells were less than 20%

d=Fisher-Freeman-Halton Exact test + p calculated due to more than 20% of cells > 5 .

e=has one expected cell with less than 1 expected case.

Table 14

Chi-Square of Associations for Financial Characteristics and Scores on the Vignettes

| Characteristics | V1 | V2 | V3 | V4 | V5 | V6 |
|---|---|---|---|--|--|--|
| Job broad categories | $\chi^2(9, 549)=16.92,$ p=0.050; V=0.10,a, c | $\chi^2(9, 549)=24.87, p=0.003;$ V=0.12* (25.22,p=0.001) d | $\chi^2(9, 549)=19.30,$ p=0.023; V=0.11 a, c | $\chi^2(9, 549)=18.35,$ p=0.031; V=0.11 a, c | $\chi^2(9, 549)=12.87,$ p=0.169; V=0.09 (12.80, p=0.136) d, e | $\chi^2(9, 549)=24.03, p=0.004;$ V=0.12* (24.82, p=0.001) d, e |
| Income categories (0-20000 20001/40000 60001-80000 80001-10000 100001 + Missing/PNTS) | $\chi^2(18, 549)=28.87,$ p=0.050; V=0.13,c | $\chi^2(18, 549)=14.57,$ p=0.691; V=0.09 (14.57, p=0.680)d | $\chi^2(18, 549)=20.137,$ p=0.326; V=0.11, c | $\chi^2(18, 549)=17.95,$ p=0.459; V=0.10, c | $\chi^2(18, 549)=16.99,$ p=0.52; V=0.10* (16.58, p=0.476),d,e | $\chi^2(18, 549)=18.60,$ p=0.417; V=0.11, {17.50, p=0.439) d |
| Comparison to others 1to 5 | $\chi^2(12, 549)=8.82,$ p=0.718; V=0.07 (8.92, p=0.690) d, e | $\chi^2(12, 549)=10.93,$ p=0.535; V=0.08 (11.41, p=0.426) d,e | $\chi^2(12, 549)=20.56,$ p=0.057; V=0.11, c | $\chi^2(12, 549)=13.11,$ p=0.361; V=0.09, (13.01, p=0.336) d,e | $\chi^2(12, 549)=7.19,$ p=0.845; V=0.07, (7.48, p=0.791) d,e | $\chi^2(12, 549)=19.77,$ p=0.072; V=0.11, (18.71, p=0.069) d,e |
| Direction of financial situa- tion (Worsened/same/im- proved) | $\chi^2(6, 549)=3.80,$ p=0.703; V=0.06 | $\chi^2(6, 549)=7.67, p=0.263;$ V=0.08, (7.46, p=0.268)d | $\chi^2(6, 549)=6.77,$ p=0.342; V=0.08b | $\chi^2(6, 549)=7.65,$ p=0.265; V=0.08b | $\chi^2(6, 549)=5.74, p=0.453;$ V=0.07c | $\chi^2(6, 549)=6.37, p=0.379;$ V=0.08, c |

a=Bold=significant with p<0.05

b=means no empty cells

c=empty cells were less than 20%

d=Fisher-Freeman-Halton Exact test + p calculated due to more than 20% of cells >5.

e=has one expected cell with less than 1 expected case.

Table 15

Chi-Square of Associations for significant political categorical characteristics and Scores on the Vignettes

| Characteristics | V1 | V2 | V3 | V4 | V5 | V6 |
|---|---|---|--|---|--|--|
| Brexit (Remainer/Leavers/Others) | $\chi^2(6, 549)=16.94, p=0.01$ V=0.12c | $\chi^2(6, 549)=32.94,$ p<0.001 V=0.17, (28.10, p<0.000),d | $\chi^2(6, 549)=36.77, p<0.001;$ V=0.18, c | $\chi^2(6, 549)=25.082,$ p<0.001; V=0.15, c | $\chi^2(6, 549)=6.33,$ p=0.387 V=0.08, (7.35, p=0.238),d, e | $\chi^2(6, 549)=5.81, p=0.444;$ V=0.07, c |
| Supporter party | $\chi^2(3, 549)=4.28,$ p=0.234; V=0.09, b | $\chi^2(3, 549)=8.56,$ p=0.036; V=0.13, a, b | $\chi^2(3, 549)=6.50, p=0.090;$ V=0.10, b | $\chi^2(3, 549)=12.09,$ p=0.007; V=0.15,a, b | $\chi^2(3, 549)=1.19,$ p=0.755; V=0.05, c | $\chi^2(3, 549)=2.16, p=0.539;$ V=0.06, b |
| Political party Cons/Brexit Labour None Others Green Party | $\chi^2(12, 549)=26.21,$ p=0.010; V=0.13, a,c | $\chi^2(12, 549)=48.34,$ p<0.001; V=0.17, (45,45, p<0.001) a, d | $\chi^2(12, 549)=39.68, p<0.001;$ V=0.16, a, c | $\chi^2(12, 549)=41.51,$ p<0.001; V=0.16, a, c | $\chi^2(12, 549)=32.17,$ p=0.001; V=0.14, (29,96, p<0.001) a, d,e | $\chi^2(12, 549)=13.19,$ p=0.356; V=0.09, b |

a=Bold=significant with p<0.05

b=means no empty cells

c=empty cells were less than 20%

d=Fisher-Freeman-Halton Exact test + p calculated due to more than 20% of cells >5.

e=has one expected cell with less than 1 expected case.

Table 16

Chi-Square of Association for Perceived Health Access Questions and Scores on the Vignettes

| Characteristics | V1 | V2 | V3 | V4 | V5 | V6 |
|---|--|---|--|--|---|--|
| Health Status Good/Fair/Bad (Results kept for information but deemed too close to disability?) | $\chi^2(6, 549)=1.85,$ $p=0.933; V=0.04c$ | $\chi^2(6, 549)=6.74,$ $p=0.346; V=0.08,$ (5.98, $p=0.369$) d | $\chi^2(6, 549)=8.05,$ $p=0.235; V=0.09c$ | $\chi^2(6, 549)=3.47,$ $p=0.748; V=0.06c$ | $\chi^2(6, 549)=3.92,$ $p=0.688; V=0.06,$ (3.72, $p=0.673$) d, e | $\chi^2(6, 549)=6.18, p=0.404; V=0.08,$ (5.80, $p=0.412$) d, e |
| Accessing medical intervention each time you needed it | $\chi^2(3, 335)=1.14,$ $p=0.769; V=0.06b$ | $\chi^2(3, 335)=0.46,$ $p=0.928; V=0.04,$ (0.635, $p=0.917$),d | $\chi^2(3, 335)=2.58,$ $p=0.461; V=0.09b$ | $\chi^2(3, 335)=2.85,$ $p=0.415; V=0.09c$ | $\chi^2(3, 335)=3.49,$ $p=0.322; V=0.10,$ (3.55, $p=0.310$),d | $\chi^2(3, 335)=2.99, p=0.393; V=0.10, c$ |
| Whether participants had been discriminated based on gender/sex in health services in health services | $\chi^2(3, 549)=1.08,$ $p=0.783; V=0.04$ | $\chi^2(3, 549)=0.75,$ $p=0.86; V=0.04,$ (FHFE=0.97, $p=0.808$) | $\chi^2(3, 549)=12.16,$ $p=0.007; V=0.15$ | $\chi^2(3, 549)=3.72,$ $p=0.294; V=0.08$ | $\chi^2(3, 549)=1.70,$ $p=0.636; V=0.06$ | $\chi^2(3, 549)=7.53, p=0.057; V=0.117$ |
| Whether participants had been discriminated based on their sexual orientation in health services | $\chi^2(3, 549)=7.75,$ $p=0.05; V=0.12,$ (FHFE=7.44, $p=0.043$),a, d | $\chi^2(3, 549)=1.62,$ $p=0.654; V=0.119$ (FHFE=1.51, $p=0.559$),d | $\chi^2(3, 549)=5.57,$ $p=0.141; V=0.100$ (FHFE=4.08, $p=0.185$),d | $\chi^2(3, 549)=8.08,$ $p=0.044; V=0.12$ (FHFE=7.59, $p=0.04$),a,d | $\chi^2(3, 549)=2.70,$ $p=0.44; V=0.07$ (FHFE=2.49, $p=0.445$),a,d | $\chi^2(3, 549)=3.56, p=0.31; V=0.08$ (FHFE=3.83, $p=0.226$),a,d |

a=Bold=significant with $p<0.05$

b=means no empty cells

c=empty cells were less than 20%

d=Fisher-Freeman-Halton Exact test + p calculated due to more than 20% of cells >5 .

e=has one expected cell with less than 1 expected case.

6.21. Appendix U. Post-hoc Adjusted Standardised Residual interpretation (RQ 1a – differences in vignette scores for demographic and personal factors)

For each vignette, Chi-squares of associations that were significant association between vignette scores and characteristics were reported. A residual analysis was then interpreted. The residual is the difference between the expected and observed frequency. Larger residuals mean that the observed frequency is further to the expected frequency. This can be problematic because larger residuals are found in larger expected or observed frequencies (Agresti, 2007; Agresti, 2013). This was addressed by using the Adjusted Standardised Residuals (ASR, Haberman, 1978). Using this, a cell-by-cell comparisons of expected versus frequencies was made to understand how to results differ from the null hypothesis (Agresti, 2007). The greater the ASR, the more the cell contributed to evidence against the null hypothesis. For z-score probability cut offs we used Field (2009) guidelines: if the value lies outside of ± 1.96 then it is significant at $p < 0.05$, if it lies outside ± 2.58 then it is significant at $p < 0.01$, and if it lies outside ± 3.29 then it is significant at $p < 0.001$. The sign before the z number (ASR) showed the direction of the relationship.

Vignette 1:

Being currently religious was significantly associated with vignette score choice ($\chi^2(3, 549)=10.28, p=0.016; V=0.14$). In the religious group, D1 was less often chosen than expected (22.2%, $z=-2.00, p < 0.05$) and D4 (19.6%; $z=2.8, p < 0.01$) was preferred. In the non-religious or unspecified group, D1 (77.8%, $z=2.00, p < 0.05$) was privileged and D4 (60.4%; $z=-2.8, p < 0.01$) less favoured.

Crosstab

| | | Vignette 1 | | | | Total | |
|---------------|-----------------------|---------------------|------------------|---------------------|--------------------|-----------------|--------|
| | | 1 | 2 | 3 | 4 | | |
| CURRELIYESNO) | Religious | Count | 38 ^a | 67 ^{a, b} | 11 ^{a, b} | 38 ^b | 154 |
| | | % within Vignette 1 | 22.2% | 26.7% | 35.5% | 39.6% | 28.1% |
| | | Adjusted Residual | -2.0 | -.6 | .9 | 2.8 | |
| | Not religious/missing | Count | 133 ^a | 184 ^{a, b} | 20 ^{a, b} | 58 ^b | 395 |
| | | % within Vignette 1 | 77.8% | 73.3% | 64.5% | 60.4% | 71.9% |
| | | Adjusted Residual | 2.0 | .6 | -.9 | -2.8 | |
| Total | | Count | 171 | 251 | 31 | 96 | 549 |
| | | % within Vignette 1 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Each subscript letter denotes a subset of Vignette 1 categories whose column proportions do not differ significantly from each other at the .05 level.

Job types was too significantly associated with vignette score choice ($\chi^2(9, 549)=16.92, p=0.050; V=0.10$). Significant cell values showed that in the health and social care worker group D3 (12.9%, $z=-2.1, p<0.05$) and D4 (19.8%, $z=-2.4, p<0.05$) were less favoured.

Crosstab

| | | | Vignette 1 | | | | Total |
|---------------|--|---------------------|-----------------|------------------|-----------------|-----------------|-------|
| | | | 1 | 2 | 3 | 4 | |
| JOBROADMERGED | Unemployed/Stay at home parent/house spouse/students/retired | Count | 16 ^a | 35 ^a | 3 ^a | 17 ^a | 71 |
| | | % within Vignette 1 | 9.4% | 13.9% | 9.7% | 17.7% | 12.9% |
| | | Adjusted Residual | -1.7 | .6 | -.6 | 1.5 | |
| | Mental and physical health and social care | Count | 59 ^a | 82 ^a | 4 ^a | 19 ^a | 164 |
| | | % within Vignette 1 | 34.5% | 32.7% | 12.9% | 19.8% | 29.9% |
| | | Adjusted Residual | 1.6 | 1.3 | -2.1 | -2.4 | |
| | General | Count | 87 ^a | 125 ^a | 21 ^a | 56 ^a | 289 |
| | | % within Vignette 1 | 50.9% | 49.8% | 67.7% | 58.3% | 52.6% |
| | | Adjusted Residual | -.6 | -1.2 | 1.7 | 1.2 | |
| | Missing | Count | 9 ^a | 9 ^a | 3 ^a | 4 ^a | 25 |
| | | % within Vignette 1 | 5.3% | 3.6% | 9.7% | 4.2% | 4.6% |
| | | Adjusted Residual | .5 | -1.0 | 1.4 | -.2 | |
| Total | Count | 171 | 251 | 31 | 96 | 549 | |
| | % within Vignette 1 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

Each subscript letter denotes a subset of Vignette 1 categories whose column proportions do not differ significantly from each other at the .05 level.

Income category was significantly associated with vignette score choice ($\chi^2(18, 549)=28.87, p=0.050; V=0.13$). In the group that earned less than £20000/yearly, D2 (6.4%, $z=-2.04, p<0.05$) and D4 (16.7%; $z=2.6, p<0.01$) showed significant difference between observed and expected findings. Those who preferred not to say or did not provide income values and scored D2 (10.8%; $z=-2.2, p<0.05$) also showed a significant ASR.

Crosstab

| | | | Vignette 1 | | | | Total |
|---------------------------|---------------------|---------------------|--------------------|-----------------|-------------------|-----------------|-------|
| | | | 1 | 2 | 3 | 4 | |
| INCOME CATERGORY | 0-20 000 | Count | 20 ^{a, b} | 16 ^b | 1 ^{a, b} | 16 ^a | 53 |
| | | % within Vignette 1 | 11.7% | 6.4% | 3.2% | 16.7% | 9.7% |
| | | Adjusted Residual | 1.1 | -2.4 | -1.2 | 2.6 | |
| | 20 001-40 000 | Count | 45 ^a | 72 ^a | 5 ^a | 19 ^a | 141 |
| | | % within Vignette 1 | 26.3% | 28.7% | 16.1% | 19.8% | 25.7% |
| | | Adjusted Residual | .2 | 1.5 | -1.3 | -1.5 | |
| | 40 001-60 000 | Count | 36 ^a | 55 ^a | 3 ^a | 21 ^a | 115 |
| | | % within Vignette 1 | 21.1% | 21.9% | 9.7% | 21.9% | 20.9% |
| | | Adjusted Residual | .0 | .5 | -1.6 | .2 | |
| | 60 001-80 000 | Count | 17 ^a | 35 ^a | 4 ^a | 12 ^a | 68 |
| | | % within Vignette 1 | 9.9% | 13.9% | 12.9% | 12.5% | 12.4% |
| | | Adjusted Residual | -1.2 | 1.0 | .1 | .0 | |
| | 80 001-100 000 | Count | 12 ^a | 25 ^a | 5 ^a | 6 ^a | 48 |
| | | % within Vignette 1 | 7.0% | 10.0% | 16.1% | 6.3% | 8.7% |
| | | Adjusted Residual | -1.0 | .9 | 1.5 | -1.0 | |
| | 100 000 + | Count | 13 ^a | 21 ^a | 5 ^a | 6 ^a | 45 |
| | | % within Vignette 1 | 7.6% | 8.4% | 16.1% | 6.3% | 8.2% |
| | | Adjusted Residual | -.3 | .1 | 1.7 | -.8 | |
| Missing/prefer not to say | Count | 28 ^a | 27 ^a | 8 ^a | 16 ^a | 79 | |
| | % within Vignette 1 | 16.4% | 10.8% | 25.8% | 16.7% | 14.4% | |
| | Adjusted Residual | .9 | -2.2 | 1.9 | .7 | | |
| Total | Count | 171 | 251 | 31 | 96 | 549 | |
| | % within Vignette 1 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

Each subscript letter denotes a subset of Vignette 1 categories whose column proportions do not differ significantly from each other at the .05 level.

Positions related to Brexit was significantly associated with vignette score choice in that observed and expected scores were significantly different ($\chi^2(6, 549)=16.94, p=0.010; V=0.12$). There was a difference between those who scored D4 in the Remainder group (66.7%, $z=-3.8, p<0.001$) and the Leave group (16.7%, $z=3.0, p<0.01$); and the Remainder group (66.7%, $z=-3.8, p<0.001$) and the 'other' group (16.7%, $z=2.1, p<0.05$).

Crosstab

| | | | Vignette 1 | | | | Total |
|---|---------------------|---------------------|------------------|------------------|--------------------|-----------------|-------|
| | | | 1 | 2 | 3 | 4 | |
| Thinking about Britain's relationship with the European Union, do you think of yourself as a 'Remainer', a 'Leaver', or do you not think of yourself in that way? - Selected Choice | Remainer | Count | 144 ^a | 209 ^a | 25 ^{a, b} | 64 ^b | 442 |
| | | % within Vignette 1 | 84.2% | 83.3% | 80.6% | 66.7% | 80.5% |
| | | Adjusted Residual | 1.5 | 1.5 | .0 | -3.8 | |
| | Leaver | Count | 12 ^a | 19 ^a | 1 ^a | 16 ^a | 48 |
| | | % within Vignette 1 | 7.0% | 7.6% | 3.2% | 16.7% | 8.7% |
| | | Adjusted Residual | -1.0 | -.9 | -1.1 | 3.0 | |
| | Other | Count | 15 ^a | 23 ^a | 5 ^a | 16 ^a | 59 |
| | | % within Vignette 1 | 8.8% | 9.2% | 16.1% | 16.7% | 10.7% |
| | | Adjusted Residual | -1.0 | -1.1 | 1.0 | 2.1 | |
| Total | Count | 171 | 251 | 31 | 96 | 549 | |
| | % within Vignette 1 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

Each subscript letter denotes a subset of Vignette 1 categories whose column proportions do not differ significantly from each other at the .05 level.

Party identification was also significantly associated with vignette score choice ($\chi^2(12, 549)=26.21, p=0.010; V=0.13$). Significant column proportion differences were found in the scores of those who voted for the Conservative or Brexit Party with D1 (4.1%, $z=-2.4, p<0.05$) and D4 (14.7%, $z=2.5, p<0.05$). The latter differed also from those who scored D4 in the Labour party supporter group (49.5%, $z=-2.3, p<0.05$).

Crosstab

| | | | Vignette 1 | | | | Total |
|--|--|---------------------|------------------|--------------------|-------------------|-----------------|--------|
| | | | 1 | 2 | 3 | 4 | |
| If there were a general election tomorrow, which political party do you think you would be most likely to support? - Selected Choice | Conservative/Brexit | Count | 7 ^a | 23 ^{a, b} | 2 ^{a, b} | 14 ^b | 46 |
| | | % within Vignette 1 | 4.1% | 9.2% | 6.5% | 14.7% | 8.4% |
| | | Adjusted Residual | -2.4 | .6 | -.4 | 2.5 | |
| | Labour | Count | 106 ^a | 158 ^a | 18 ^a | 47 ^a | 329 |
| | | % within Vignette 1 | 62.0% | 62.9% | 58.1% | 49.5% | 60.0% |
| | | Adjusted Residual | .6 | 1.3 | -.2 | -2.3 | |
| | None | Count | 14 ^a | 15 ^a | 3 ^a | 13 ^a | 45 |
| | | % within Vignette 1 | 8.2% | 6.0% | 9.7% | 13.7% | 8.2% |
| | | Adjusted Residual | .0 | -1.8 | .3 | 2.1 | |
| | Other answer (LibDem, Playd, SNP, etc) | Count | 18 ^a | 33 ^a | 6 ^a | 16 ^a | 73 |
| | | % within Vignette 1 | 10.5% | 13.1% | 19.4% | 16.8% | 13.3% |
| | | Adjusted Residual | -1.3 | -.1 | 1.0 | 1.1 | |
| | Green Party | Count | 26 ^a | 22 ^a | 2 ^a | 5 ^a | 55 |
| | | % within Vignette 1 | 15.2% | 8.8% | 6.5% | 5.3% | 10.0% |
| | | Adjusted Residual | 2.7 | -.9 | -.7 | -1.7 | |
| | Total | Count | 171 | 251 | 31 | 95 | 548 |
| | | % within Vignette 1 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Each subscript letter denotes a subset of Vignette 1 categories whose column proportions do not differ significantly from each other at the .05 level.

Whether people had been discriminated based on their sexuality in the health services was also significantly associated with vignette score choice ($\chi^2(13, 549)=7.75, p=0.05; V=0.12$). Due to more than 20% of cells containing under five cases, Freeman-Halton-Fisher Exact (FHFE) test was carried out (7.44, $p=0.043$). However, column proportions did not differ significantly from each other at the 0.05 level.

Crosstab

| | | Vignette 1 | | | | Total | |
|--|---|---------------------|------------------|------------------|-----------------|-----------------|--------|
| | | 1 | 2 | 3 | 4 | | |
| When using healthcare services in the past 5 years or since you have been in the UK, have you felt discriminated against for any of the following reasons? (Tick all that apply) – Selected Choice Sexual orientation (such as being gay, lesbian or bisexual) | No | Count | 163 ^a | 248 ^a | 29 ^a | 95 ^a | 535 |
| | | % within Vignette 1 | 95.3% | 98.8% | 93.5% | 99.0% | 97.4% |
| | | Adjusted Residual | -2.1 | 1.8 | -1.4 | 1.0 | |
| | Sexual orientation (such as being gay, lesbian or bisexual) | Count | 8 ^a | 3 ^a | 2 ^a | 1 ^a | 14 |
| | | % within Vignette 1 | 4.7% | 1.2% | 6.5% | 1.0% | 2.6% |
| | | Adjusted Residual | 2.1 | -1.8 | 1.4 | -1.0 | |
| Total | | Count | 171 | 251 | 31 | 96 | 549 |
| | | % within Vignette 1 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Each subscript letter denotes a subset of Vignette 1 categories whose column proportions do not differ significantly from each other at the .05 level.

Vignette 2:

Job types was significantly associated with vignette score choice in that observed and expected scores were significantly different $\chi^2(9, 549)=24.87, p=0.003; V=0.12$. Due to more than 20% of cells containing under 5 cases, FHFE test was carried out (25.22, $p=0.001$). In the group who worked in health and social care, there was a significant result for D1 (35.5%, $z=3.6, p<0.01$) and D2 (22.2%; $z=-2.6, p <0.01$).

Crosstab

| | | Vignette 2 | | | | Total | |
|---------------|--|---------------------|------------------|-----------------|-------------------|-------------------|--------|
| | | 1 | 2 | 3 | 4 | | |
| JOBROADMERGED | Unemployed/Stay at home parent/house spouse/students/retired | Count | 35 ^a | 30 ^a | 0 ^a | 6 ^a | 71 |
| | | % within Vignette 2 | 10.4% | 18.0% | 0.0% | 26.1% | 12.9% |
| | | Adjusted Residual | -2.3 | 2.3 | -1.8 | 1.9 | |
| | Mental and physical health and social care | Count | 120 ^a | 37 ^b | 5 ^{a, b} | 2 ^{a, b} | 164 |
| | | % within Vignette 2 | 35.5% | 22.2% | 23.8% | 8.7% | 29.9% |
| | | Adjusted Residual | 3.6 | -2.6 | -.6 | -2.3 | |
| | General | Count | 166 ^a | 94 ^a | 15 ^a | 14 ^a | 289 |
| | | % within Vignette 2 | 49.1% | 56.3% | 71.4% | 60.9% | 52.6% |
| | | Adjusted Residual | -2.1 | 1.1 | 1.8 | .8 | |
| | Missing | Count | 17 ^a | 6 ^a | 1 ^a | 1 ^a | 25 |
| | | % within Vignette 2 | 5.0% | 3.6% | 4.8% | 4.3% | 4.6% |
| | | Adjusted Residual | .7 | -.7 | .0 | .0 | |
| Total | | Count | 338 | 167 | 21 | 23 | 549 |
| | | % within Vignette 2 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Each subscript letter denotes a subset of Vignette 2 categories whose column proportions do not differ significantly from each other at the .05 level.

Positions related to Brexit was significantly associated with vignette score choice in that observed and expected scores were significantly difference ($\chi^2(6, 549)=32.94, p<0.001 V=0.17$). Due to more than 20% of cells containing under 5 cases, FHFE test was carried out (FHFE=28.10, $p<0.000$),). Remainders chose D1 (85.2%, $z=3.5, p<0.001$) more than expected and D4 (39.1%, $z=-5.1, p<0.001$) less than expected. The opposite pattern was observed with the Brexiter group with D4 (30.4%, $z=3.8, p<0.001$) being privileged by the Brexiter group over D1 (6.2%, $z=-2.7, p<0.01$), and in the other group with D4 (30.4%, $z=3.1, p<0.01$) being preferred over D1 (8.6%, $z=-2.1, p<0.05$).

Crosstab

| | | Vignette 2 | | | | Total | |
|---|---------------------|---------------------|------------------|--------------------|-------------------|----------------|-------|
| | | 1 | 2 | 3 | 4 | | |
| Thinking about Britain's relationship with the European Union, do you think of yourself as a 'Remainer', a 'Leaver', or do you not think of yourself in that way? - Selected Choice | Remainer | Count | 288 ^a | 128 ^a | 17 ^a | 9 ^b | 442 |
| | | % within Vignette 2 | 85.2% | 76.6% | 81.0% | 39.1% | 80.5% |
| | | Adjusted Residual | 3.5 | -1.5 | .1 | -5.1 | |
| | Leaver | Count | 21 ^a | 19 ^{a, b} | 1 ^{a, b} | 7 ^b | 48 |
| | | % within Vignette 2 | 6.2% | 11.4% | 4.8% | 30.4% | 8.7% |
| | | Adjusted Residual | -2.7 | 1.4 | -.7 | 3.8 | |
| | Other | Count | 29 ^a | 20 ^{a, b} | 3 ^{a, b} | 7 ^b | 59 |
| | | % within Vignette 2 | 8.6% | 12.0% | 14.3% | 30.4% | 10.7% |
| | | Adjusted Residual | -2.1 | .6 | .5 | 3.1 | |
| Total | Count | 338 | 167 | 21 | 23 | 549 | |
| | % within Vignette 2 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

Each subscript letter denotes a subset of Vignette 2 categories whose column proportions do not differ significantly from each other at the .05 level.

Identifying as party supporters was significantly associated with vignette score choice in that observed and expected scores were significantly different ($\chi^2(3, 549)=8.56, p=0.036; V=0.13$). However, column proportions did not differ significantly from each other at the 0.05 level.

Crosstab

| | | Vignette 2 | | | | Total | |
|---|---------------------|---------------------|------------------|-----------------|-----------------|-----------------|-------|
| | | 1 | 2 | 3 | 4 | | |
| Generally speaking, do you think of yourself as a supporter of any one political party? | Yes | Count | 190 ^a | 74 ^a | 8 ^a | 10 ^a | 282 |
| | | % within Vignette 2 | 56.2% | 44.3% | 38.1% | 43.5% | 51.4% |
| | | Adjusted Residual | 2.9 | -2.2 | -1.2 | -.8 | |
| | No | Count | 148 ^a | 93 ^a | 13 ^a | 13 ^a | 267 |
| | | % within Vignette 2 | 43.8% | 55.7% | 61.9% | 56.5% | 48.6% |
| | | Adjusted Residual | -2.9 | 2.2 | 1.2 | .8 | |
| Total | Count | 338 | 167 | 21 | 23 | 549 | |
| | % within Vignette 2 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

Each subscript letter denotes a subset of Vignette 2 categories whose column proportions do not differ significantly from each other at the .05 level.

Party identification was also significantly associated with vignette score choice $\chi^2(12, 549)=48.34, p<0.001; V=0.17$. Due to more than 20% of cells containing under 5 cases, FHFE test was carried out (45,45, $p<0.001$). Significant column proportion differences were found in the scores of those who affiliated to the Conservative or Brexit Party with D1 (3.8%, $z=-4.9, p<0.001$) and D2 (15.6%, $z=4.00, p<0.001$) as well as differences between D1 and D4 (27.3%, $z=3.3, p<0.001$) and in those who affiliated to Labour with D1 (67.5%, $z=4.5, p<0.001$) and D2 (46.7%, $z=-4.2, p<0.001$).

Crosstab

| | | | Vignette 2 | | | | Total |
|--|--|---------------------|------------------|-----------------|--------------------|-------------------|-------|
| | | | 1 | 2 | 3 | 4 | |
| If there were a general election tomorrow, which political party do you think you would be most likely to support? - Selected Choice | Conservative/Brexit | Count | 13 _a | 26 _b | 1 _{a, b} | 6 _b | 46 |
| | | % within Vignette 2 | 3.8% | 15.6% | 4.8% | 27.3% | 8.4% |
| | | Adjusted Residual | -4.9 | 4.0 | -.6 | 3.3 | |
| | Labour | Count | 228 _a | 78 _b | 14 _{a, b} | 9 _{a, b} | 329 |
| | | % within Vignette 2 | 67.5% | 46.7% | 66.7% | 40.9% | 60.0% |
| | | Adjusted Residual | 4.5 | -4.2 | .6 | -1.9 | |
| | None | Count | 24 _a | 14 _a | 3 _a | 4 _a | 45 |
| | | % within Vignette 2 | 7.1% | 8.4% | 14.3% | 18.2% | 8.2% |
| | | Adjusted Residual | -1.2 | .1 | 1.0 | 1.7 | |
| | Other answer (LibDem, Playd, SNP, etc) | Count | 41 _a | 28 _a | 3 _a | 1 _a | 73 |
| | | % within Vignette 2 | 12.1% | 16.8% | 14.3% | 4.5% | 13.3% |
| | | Adjusted Residual | -1.0 | 1.6 | .1 | -1.2 | |
| | Green Party | Count | 32 _a | 21 _a | 0 _a | 2 _a | 55 |
| | | % within Vignette 2 | 9.5% | 12.6% | 0.0% | 9.1% | 10.0% |
| | | Adjusted Residual | -.6 | 1.3 | -1.6 | -.2 | |
| Total | Count | 338 | 167 | 21 | 22 | 548 | |
| | % within Vignette 2 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

Each subscript letter denotes a subset of Vignette 2 categories whose column proportions do not differ significantly from each other at the .05 level.

Vignette 3:

Age was significantly associated with vignette score choice in that observed and expected scores were significantly different ($\chi^2(9, 549)=25.79, p=0.002, V=.125$). In 18-30 years olds, significant column proportion differences were found for D1 ($z=2.7, p <0.01$) and D2 ($z=-2.9, p<0.01$). In 46-60 year old, significant column proportion differences were found for D4 ($z=2.6, p<0.01$) but no other Z scores were significant below the specified level.

Crosstab

| | | Vignette 3 | | | | Total | |
|---------|-------|---------------------|--------------------|--------------------|-----------------|-------------------|--------|
| | | 1 | 2 | 3 | 4 | | |
| AGE CAT | 18-30 | Count | 73 ^a | 57 ^b | 26 ^a | 9 ^{a, b} | 165 |
| | | % within Vignette 3 | 37.1% | 23.6% | 40.6% | 19.6% | 30.1% |
| | | Adjusted Residual | 2.7 | -2.9 | 2.0 | -1.6 | |
| 31-45 | | Count | 84 ^a | 117 ^a | 28 ^a | 16 ^a | 245 |
| | | % within Vignette 3 | 42.6% | 48.3% | 43.8% | 34.8% | 44.6% |
| | | Adjusted Residual | -.7 | 1.6 | -.2 | -1.4 | |
| 46-60 | | Count | 31 ^{a, b} | 48 ^{a, b} | 7 ^b | 15 ^a | 101 |
| | | % within Vignette 3 | 15.7% | 19.8% | 10.9% | 32.6% | 18.4% |
| | | Adjusted Residual | -1.2 | .8 | -1.6 | 2.6 | |
| 61-75 | | Count | 9 ^a | 20 ^a | 3 ^a | 6 ^a | 38 |
| | | % within Vignette 3 | 4.6% | 8.3% | 4.7% | 13.0% | 6.9% |
| | | Adjusted Residual | -1.6 | 1.1 | -.7 | 1.7 | |
| Total | | Count | 197 | 242 | 64 | 46 | 549 |
| | | % within Vignette 3 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Each subscript letter denotes a subset of Vignette 3 categories whose column proportions do not differ significantly from each other at the .05 level.

Education level was significantly associated with vignette score choice in that observed and expected scores were significantly different ($\chi^2(6, 549)=21.02$, $p=0.002$; $V=0.14$). In the group who had received the least education (up till high-school), significant column proportion differences were found for D1 (4.1%, $z=-2.00$, $p<0.5$) and D4 (19.6%; $z=3.5$, $p<0.01$). In the group who had received the highest level of education (currently or completed postgraduate studies), the ASR was significant for D1(63.5%, $z=2.5$, $p<0.01$) and D3 (43.8%, $z=-2.2$, $p<0.01$)

Crosstab

| | | | Vignette 3 | | | | Total |
|-------------|--|---------------------|------------------|---------------------|-------------------|--------------------|--------|
| | | | 1 | 2 | 3 | 4 | |
| EDUC MERGED | Completed high school OR BEFORE | Count | 8 _a | 16 _a | 5 _{a, b} | 9 _b | 38 |
| | | % within Vignette 3 | 4.1% | 6.6% | 7.8% | 19.6% | 6.9% |
| | | Adjusted Residual | -2.0 | -.3 | .3 | 3.5 | |
| | Currently or completed in college/university | Count | 64 _a | 91 _a | 31 _a | 16 _a | 202 |
| | | % within Vignette 3 | 32.5% | 37.6% | 48.4% | 34.8% | 36.8% |
| | | Adjusted Residual | -1.6 | .3 | 2.1 | -.3 | |
| | Currently or completed in postgraduate/professional school | Count | 125 _a | 135 _{a, b} | 28 _b | 21 _{a, b} | 309 |
| | | % within Vignette 3 | 63.5% | 55.8% | 43.8% | 45.7% | 56.3% |
| | | Adjusted Residual | 2.5 | -.2 | -2.2 | -1.5 | |
| Total | | Count | 197 | 242 | 64 | 46 | 549 |
| | | % within Vignette 3 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Each subscript letter denotes a subset of Vignette 3 categories whose column proportions do not differ significantly from each other at the .05 level.

Ethnicity was significantly associated with vignette score choice ($\chi^2(6, 549)=16.78$, $p=0.010$; $V=0.12$). In the group who identified as white there was a significant difference in scores on D2 (66.9%, $z=-2.2$, $p<0.05$) and D4 (87%, $z=2.4$, $p<0.05$). In the group of those who identified as Black, Asian, Mixed or 'Other', significant column proportion differences were found to be significant for D1 (8.6%, $z=-2.6$, $p<0.01$) and D2 (17.8%, $z=2.4$, $p<0.05$).

Crosstab

| | | | Vignette 3 | | | | Total |
|-----------------------------------|-------------------------------|---------------------|---------------------|------------------|--------------------|-------------------|--------|
| | | | 1 | 2 | 3 | 4 | |
| Ethnicity broad categories MERGED | White | Count | 147 _{a, b} | 162 _b | 45 _{a, b} | 40 _a | 394 |
| | | % within Vignette 3 | 74.6% | 66.9% | 70.3% | 87.0% | 71.8% |
| | | Adjusted Residual | 1.1 | -2.2 | -.3 | 2.4 | |
| | Missing/DNC | Count | 33 _a | 37 _a | 6 _a | 3 _a | 79 |
| | | % within Vignette 3 | 16.8% | 15.3% | 9.4% | 6.5% | 14.4% |
| | | Adjusted Residual | 1.2 | .5 | -1.2 | -1.6 | |
| | Black, asian, mixed and other | Count | 17 _a | 43 _b | 13 _{a, b} | 3 _{a, b} | 76 |
| | | % within Vignette 3 | 8.6% | 17.8% | 20.3% | 6.5% | 13.8% |
| | | Adjusted Residual | -2.6 | 2.4 | 1.6 | -1.5 | |
| Total | | Count | 197 | 242 | 64 | 46 | 549 |
| | | % within Vignette 3 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Each subscript letter denotes a subset of Vignette 3 categories whose column proportions do not differ significantly from each other at the .05 level.

Religious childhood ($\chi^2(3, 549)=7.92, p=0.046; V=0.12$) was significantly associated with vignette score choice in that observed and expected scores were significantly different. However, no residual appeared significant.

Crosstab

| | | Vignette 3 | | | | Total | |
|---------------|-----------------------|---------------------|------------------|------------------|-----------------|-----------------|-------|
| | | 1 | 2 | 3 | 4 | | |
| PrevRELIYESNO | Religious | Count | 115 _a | 166 _a | 47 _a | 27 _a | 355 |
| | | % within Vignette 3 | 58.4% | 68.6% | 73.4% | 58.7% | 64.7% |
| | | Adjusted Residual | -2.3 | 1.7 | 1.6 | -.9 | |
| | Not religious/missing | Count | 82 _a | 76 _a | 17 _a | 19 _a | 194 |
| | | % within Vignette 3 | 41.6% | 31.4% | 26.6% | 41.3% | 35.3% |
| | | Adjusted Residual | 2.3 | -1.7 | -1.6 | .9 | |
| Total | Count | 197 | 242 | 64 | 46 | 549 | |
| | % within Vignette 3 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

Each subscript letter denotes a subset of Vignette 3 categories whose column proportions do not differ significantly from each other at the .05 level.

Being currently religious was significantly associated with vignette score choice in that observed and expected scores were significantly different ($\chi^2(3, 549)=9.15, p=0.027; V=0.13$). In the religious group, the ASR was significant for D1 (20.3%, $z=-3.00, p<0.01$). In the group who were not religious or did not specify, the ASR was significant for D1 (79.7%, $z=3.00, p<0.01$).

Crosstab

| | | Vignette 3 | | | | Total | |
|---------------|-----------------------|---------------------|------------------|------------------|--------------------|--------------------|-------|
| | | 1 | 2 | 3 | 4 | | |
| CURRELIYESNO) | Religious | Count | 40 _a | 78 _b | 21 _{a, b} | 15 _{a, b} | 154 |
| | | % within Vignette 3 | 20.3% | 32.2% | 32.8% | 32.6% | 28.1% |
| | | Adjusted Residual | -3.0 | 1.9 | .9 | .7 | |
| | Not religious/missing | Count | 157 _a | 164 _b | 43 _{a, b} | 31 _{a, b} | 395 |
| | | % within Vignette 3 | 79.7% | 67.8% | 67.2% | 67.4% | 71.9% |
| | | Adjusted Residual | 3.0 | -1.9 | -.9 | -.7 | |
| Total | Count | 197 | 242 | 64 | 46 | 549 | |
| | % within Vignette 3 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

Each subscript letter denotes a subset of Vignette 3 categories whose column proportions do not differ significantly from each other at the .05 level.

Job types was significantly associated with vignette score choice in that observed and expected scores were significantly different ($\chi^2(9, 549)=19.30, p=0.023; V=0.11$). In the group who worked in health and social care, significant column proportion differences were found for D1 (38.1%, $z=3.1, p<0.01$) and D4 (15.2%; $z=-2.3, p <0.05$).

Crosstab

| | | | Vignette 3 | | | | Total |
|---------------|--|---------------------|-----------------|--------------------|--------------------|-----------------|-------|
| | | | 1 | 2 | 3 | 4 | |
| JOBROADMERGED | Unemployed/Stay at home parent/house spouse/students/retired | Count | 22 _a | 32 _a | 8 _a | 9 _a | 71 |
| | | % within Vignette 3 | 11.2% | 13.2% | 12.5% | 19.6% | 12.9% |
| | | Adjusted Residual | -.9 | .2 | -.1 | 1.4 | |
| | Mental and physical health and social care | Count | 75 _a | 67 _{a, b} | 15 _{a, b} | 7 _b | 164 |
| | | % within Vignette 3 | 38.1% | 27.7% | 23.4% | 15.2% | 29.9% |
| | | Adjusted Residual | 3.1 | -1.0 | -1.2 | -2.3 | |
| | General | Count | 93 _a | 128 _a | 41 _a | 27 _a | 289 |
| | | % within Vignette 3 | 47.2% | 52.9% | 64.1% | 58.7% | 52.6% |
| | | Adjusted Residual | -1.9 | .1 | 1.9 | .9 | |
| | Missing | Count | 7 _a | 15 _a | 0 _a | 3 _a | 25 |
| | | % within Vignette 3 | 3.6% | 6.2% | 0.0% | 6.5% | 4.6% |
| | | Adjusted Residual | -.8 | 1.6 | -1.9 | .7 | |
| Total | Count | 197 | 242 | 64 | 46 | 549 | |
| | % within Vignette 3 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

Each subscript letter denotes a subset of Vignette 3 categories whose column proportions do not differ significantly from each other at the .05 level.

Positions related to Brexit was significantly associated with vignette score choice in that observed and expected scores were significantly different ($\chi^2(6, 549)=36.77, p<0.001; V=0.18$). Remainders chose D1 (89.3%, $z=3.9, p<0.001$) more than expected and D4 (58.1%, $z=-3.9, p<0.001$) less than expected. The same pattern was observed with the Leaver group with D4 (28.3%, $z=4.9, p<0.001$) being privileged over D1 (4.6%, $z=-2.6, p<0.01$).

Crosstab

| | | | Vignette 3 | | | | Total |
|---|---------------------|---------------------|------------------|------------------|--------------------|-----------------|-------|
| | | | 1 | 2 | 3 | 4 | |
| Thinking about Britain's relationship with the European Union, do you think of yourself as a 'Remainer', a 'Leaver', or do you not think of yourself in that way? - Selected Choice | Remainer | Count | 176 _a | 192 _b | 47 _{b, c} | 27 _c | 442 |
| | | % within Vignette 3 | 89.3% | 79.3% | 73.4% | 58.7% | 80.5% |
| | | Adjusted Residual | 3.9 | -.6 | -1.5 | -3.9 | |
| | Leaver | Count | 9 _a | 18 _a | 8 _{a, b} | 13 _b | 48 |
| | | % within Vignette 3 | 4.6% | 7.4% | 12.5% | 28.3% | 8.7% |
| | | Adjusted Residual | -2.6 | -1.0 | 1.1 | 4.9 | |
| | Other | Count | 12 _a | 32 _a | 9 _a | 6 _a | 59 |
| | | % within Vignette 3 | 6.1% | 13.2% | 14.1% | 13.0% | 10.7% |
| | | Adjusted Residual | -2.6 | 1.7 | .9 | .5 | |
| Total | Count | 197 | 242 | 64 | 46 | 549 | |
| | % within Vignette 3 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

Each subscript letter denotes a subset of Vignette 3 categories whose column proportions do not differ significantly from each other at the .05 level.

Party identification was also significantly associated with vignette score choice $\chi^2(12, 549)=39.68, p<0.001; V=0.16$. Significant column proportion differences were found in the scores of those who affiliated to the Conservative/ Brexit Party with D1 (1%, $z=-4.7, p<0.001$) and D4 (24.4%, $z=4.1, p<0.001$), and in those who affiliated to Labour with D1 (69%, $z=3.2, p<0.01$) and D4 (37.8%, $z=-3.2, p<0.01$).

Crosstab

| | | | Vignette 3 | | | | |
|--|--|---------------------|------------------|---------------------|--------------------|-----------------|-------|
| | | | 1 | 2 | 3 | 4 | Total |
| If there were a general election tomorrow, which political party do you think you would be most likely to support? - Selected Choice | Conservative/Brexit | Count | 2 _a | 26 _b | 7 _b | 11 _b | 46 |
| | | % within Vignette 3 | 1.0% | 10.7% | 10.9% | 24.4% | 8.4% |
| | | Adjusted Residual | -4.7 | 1.8 | .8 | 4.1 | |
| | Labour | Count | 136 _a | 142 _{a, b} | 34 _{a, b} | 17 _b | 329 |
| | | % within Vignette 3 | 69.0% | 58.7% | 53.1% | 37.8% | 60.0% |
| | | Adjusted Residual | 3.2 | -.6 | -1.2 | -3.2 | |
| | None | Count | 12 _a | 22 _a | 6 _a | 5 _a | 45 |
| | | % within Vignette 3 | 6.1% | 9.1% | 9.4% | 11.1% | 8.2% |
| | | Adjusted Residual | -1.4 | .7 | .4 | .7 | |
| | Other answer (LibDem, Playd, SNP, etc) | Count | 25 _a | 29 _a | 11 _a | 8 _a | 73 |
| | | % within Vignette 3 | 12.7% | 12.0% | 17.2% | 17.8% | 13.3% |
| | | Adjusted Residual | -.3 | -.8 | 1.0 | .9 | |
| | Green Party | Count | 22 _a | 23 _a | 6 _a | 4 _a | 55 |
| | | % within Vignette 3 | 11.2% | 9.5% | 9.4% | 8.9% | 10.0% |
| | | Adjusted Residual | .7 | -.4 | -.2 | -.3 | |
| Total | Count | 197 | 242 | 64 | 45 | 548 | |
| | % within Vignette 3 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

Each subscript letter denotes a subset of Vignette 3 categories whose column proportions do not differ significantly from each other at the .05 level.

Whether people had been discriminated based on their gender in the health services was significantly associated to vignette choice $\chi^2(3, 549)=12.16, p=0.007; V=0.15$. Significant column proportion differences were found in the scores of those who were discriminated against based on sex or gender with option D1 ($z=2.8$) and D3 ($z=-2.6$), and in those who were not discriminated against on that basis preferring D3 ($z=2.6$) over D1 ($z=-2.8$).

Crosstab

| | | | Vignette 3 | | | | |
|--|---|---------------------|------------------|---------------------|-----------------|--------------------|-------|
| | | | 1 | 2 | 3 | 4 | Total |
| When using healthcare services in the past 5 years or since you have been in the UK, have you felt discriminated against for any of the following reasons? (Tick all that apply) - Selected Choice | No | Count | 159 _a | 210 _{a, b} | 62 _b | 42 _{a, b} | 473 |
| | | % within Vignette 3 | 80.7% | 86.8% | 96.9% | 91.3% | 86.2% |
| | | Adjusted Residual | -2.8 | .4 | 2.6 | 1.1 | |
| | Sex/gender (such as being a man or a woman) | Count | 38 _a | 32 _{a, b} | 2 _b | 4 _{a, b} | 76 |
| | | % within Vignette 3 | 19.3% | 13.2% | 3.1% | 8.7% | 13.8% |
| | | Adjusted Residual | 2.8 | -.4 | -2.6 | -1.1 | |
| Total | Count | 197 | 242 | 64 | 46 | 549 | |
| | % within Vignette 3 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

Each subscript letter denotes a subset of Vignette 3 categories whose column proportions do not differ significantly from each other at the .05 level.

Vignette 4:

Age ($\chi^2(9, 549)=29.20, p<0.001, V=0.133$) was significantly associated with vignette score choice in that observed and expected scores were significantly different. In 18–30-year-olds, the ASR was significant for D1 ($z=4.00, p <0.001$) and D2 ($z=-3.1, p<0.01$). In 46-60 year old, the ASR was significant for D1 ($z=-3.5, p<0.01$) and D4 ($z=2.4, p<0.01$).

Crosstab

| | | Vignette 4 | | | | Total | |
|---------|---------------------|---------------------|-----------------|-----------------|--------------------|-----------------|-------|
| | | 1 | 2 | 3 | 4 | | |
| AGE CAT | 18-30 | Count | 72 ^a | 43 ^b | 11 ^{a, b} | 39 ^b | 165 |
| | | % within Vignette 4 | 41.6% | 21.9% | 40.7% | 25.5% | 30.1% |
| | | Adjusted Residual | 4.0 | -3.1 | 1.2 | -1.4 | |
| | 31-45 | Count | 72 ^a | 95 ^a | 11 ^a | 67 ^a | 245 |
| | | % within Vignette 4 | 41.6% | 48.5% | 40.7% | 43.8% | 44.6% |
| | | Adjusted Residual | -1.0 | 1.3 | -.4 | -.2 | |
| | 46-60 | Count | 17 ^a | 41 ^b | 5 ^{a, b} | 38 ^b | 101 |
| | | % within Vignette 4 | 9.8% | 20.9% | 18.5% | 24.8% | 18.4% |
| | | Adjusted Residual | -3.5 | 1.1 | .0 | 2.4 | |
| | 61-75 | Count | 12 ^a | 17 ^a | 0 ^a | 9 ^a | 38 |
| | | % within Vignette 4 | 6.9% | 8.7% | 0.0% | 5.9% | 6.9% |
| | | Adjusted Residual | .0 | 1.2 | -1.5 | -.6 | |
| Total | Count | 173 | 196 | 27 | 153 | 549 | |
| | % within Vignette 4 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

Each subscript letter denotes a subset of Vignette 4 categories whose column proportions do not differ significantly from each other at the .05 level.

Country of birth ($\chi^2(3, 549)=10.01, p=0.019; V=0.14$) was significantly associated with vignette score choice in that observed and expected scores were significantly different. There were no significant differences where the z scores were also significant.

Crosstab

| | | Vignette 4 | | | | Total | |
|---------------|---------------------|---------------------|------------------|------------------|-----------------|------------------|-------|
| | | 1 | 2 | 3 | 4 | | |
| BIRTH COUNTRY | UK | Count | 150 ^a | 165 ^a | 17 ^b | 130 ^a | 462 |
| | | % within Vignette 4 | 86.7% | 84.2% | 63.0% | 85.0% | 84.2% |
| | | Adjusted Residual | 1.1 | .0 | -3.1 | .3 | |
| | Other | Count | 23 ^a | 31 ^a | 10 ^b | 23 ^a | 87 |
| | | % within Vignette 4 | 13.3% | 15.8% | 37.0% | 15.0% | 15.8% |
| | | Adjusted Residual | -1.1 | .0 | 3.1 | -.3 | |
| Total | Count | 173 | 196 | 27 | 153 | 549 | |
| | % within Vignette 4 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

Each subscript letter denotes a subset of Vignette 4 categories whose column proportions do not differ significantly from each other at the .05 level.

Ethnicity was significantly associated with vignette score choice ($\chi^2(6, 549)=16.78, p=0.010; V=0.12$). There were no significant differences where the z scores were also significant.

Crosstab

| | | | Vignette 4 | | | | Total |
|-----------------------------------|-------------------------------|---------------------|---------------------|---------------------|-----------------|------------------|-------|
| | | | 1 | 2 | 3 | 4 | |
| Ethnicity broad categories MERGED | White | Count | 120 _{a, b} | 143 _{a, b} | 13 _b | 118 _a | 394 |
| | | % within Vignette 4 | 69.4% | 73.0% | 48.1% | 77.1% | 71.8% |
| | | Adjusted Residual | -.8 | .5 | -2.8 | 1.7 | |
| | Missing/DNC | Count | 30 _a | 30 _a | 3 _a | 16 _a | 79 |
| | | % within Vignette 4 | 17.3% | 15.3% | 11.1% | 10.5% | 14.4% |
| | | Adjusted Residual | 1.3 | .5 | -.5 | -1.6 | |
| | Black, asian, mixed and other | Count | 23 _a | 23 _a | 11 _b | 19 _a | 76 |
| | | % within Vignette 4 | 13.3% | 11.7% | 40.7% | 12.4% | 13.8% |
| | | Adjusted Residual | -.3 | -1.1 | 4.2 | -.6 | |
| Total | Count | 173 | 196 | 27 | 153 | 549 | |
| | % within Vignette 4 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

Each subscript letter denotes a subset of Vignette 4 categories whose column proportions do not differ significantly from each other at the .05 level.

Sexuality was significantly associated with vignette score choice ($\chi^2(6, 549)=14.70, p=0.023; V=0.12$). Significant differences were observed in the heterosexual group for D1 (60.7%, $z=-3.00, P<0.01$) and D4 (77.8%, $z=2.6, p<0.01$). Those who defined themselves with a LGBTQ+ sexuality presented significant differences with D1 (19.1%, $z=3.2, p<0.01$) and D4 (8.5%, $z=-2.1, p<0.05$).

Crosstab

| | | | Vignette 4 | | | | Total |
|----------------------|--|---------------------|------------------|---------------------|--------------------|------------------|-------|
| | | | 1 | 2 | 3 | 4 | |
| Sexuality Cat merged | Heterosexuality | Count | 105 _a | 138 _{a, b} | 19 _{a, b} | 119 _b | 381 |
| | | % within Vignette 4 | 60.7% | 70.4% | 70.4% | 77.8% | 69.4% |
| | | Adjusted Residual | -3.0 | .4 | .1 | 2.6 | |
| | Homosexuality/Bi/Queer /Pan/QUEST/ASEX | Count | 35 _a | 22 _{a, b} | 3 _{a, b} | 13 _b | 73 |
| | | % within Vignette 4 | 20.2% | 11.2% | 11.1% | 8.5% | 13.3% |
| | | Adjusted Residual | 3.2 | -1.1 | -.3 | -2.1 | |
| | Missing/PNTS | Count | 33 _a | 36 _a | 5 _a | 21 _a | 95 |
| | | % within Vignette 4 | 19.1% | 18.4% | 18.5% | 13.7% | 17.3% |
| | | Adjusted Residual | .7 | .5 | .2 | -1.4 | |
| Total | Count | 173 | 196 | 27 | 153 | 549 | |
| | % within Vignette 4 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

Each subscript letter denotes a subset of Vignette 4 categories whose column proportions do not differ significantly from each other at the .05 level.

Being currently religious was significantly associated with vignette score choice in that observed and expected scores were significantly different ($\chi^2(3, 549)=12.02$, $p=0.007$; $V=0.15$). In the religious group, the ASR was significant for D1 (20.8%, $z=-2.6$, $p<0.01$) and D4 (37.9%, $z=-3.2$, $p<0.01$). In the group who were not religious or did not specify, the ASR was significant for D1 (79.2%, $z=2.6$, $p<0.01$) and D4 (62.1%, $z=-3.2$, $p<0.01$).

Crosstab

| | | Vignette 4 | | | | Total | |
|---------------|-----------------------|---------------------|------------------|---------------------|--------------------|-----------------|-------|
| | | 1 | 2 | 3 | 4 | | |
| CURRELIYESNO) | Religious | Count | 36 ^a | 53 ^{a, b} | 7 ^{a, b} | 58 ^b | 154 |
| | | % within Vignette 4 | 20.8% | 27.0% | 25.9% | 37.9% | 28.1% |
| | | Adjusted Residual | -2.6 | -.4 | -.3 | 3.2 | |
| | Not religious/missing | Count | 137 ^a | 143 ^{a, b} | 20 ^{a, b} | 95 ^b | 395 |
| | | % within Vignette 4 | 79.2% | 73.0% | 74.1% | 62.1% | 71.9% |
| | | Adjusted Residual | 2.6 | .4 | .3 | -3.2 | |
| Total | Count | 173 | 196 | 27 | 153 | 549 | |
| | % within Vignette 4 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

Each subscript letter denotes a subset of Vignette 4 categories whose column proportions do not differ significantly from each other at the .05 level.

Job types was significantly associated with vignette score choice in that observed and expected scores were significantly difference ($\chi^2(9, 549)=18.35$, $p=0.031$; $V=0.11$). In the group who worked in health and social care, the ASR was significant for D1 (39.9%, $z=3.5$, $p<0.001$) and D3 (11.1%; $z=-2.2$, $p<0.05$) and D1 and D4 (22.9%, $z=-2.2$, $p<0.05$).

Crosstab

| | | Vignette 4 | | | | Total | |
|---------------|--|---------------------|-----------------|---------------------|-----------------|-----------------|-------|
| | | 1 | 2 | 3 | 4 | | |
| JOBROADMERGED | Unemployed/Stay at home parent/house spouse/students/retired | Count | 22 ^a | 22 ^a | 4 ^a | 23 ^a | 71 |
| | | % within Vignette 4 | 12.7% | 11.2% | 14.8% | 15.0% | 12.9% |
| | | Adjusted Residual | -.1 | -.9 | .3 | .9 | |
| | Mental and physical health and social care | Count | 69 ^a | 57 ^{a, b} | 3 ^b | 35 ^b | 164 |
| | | % within Vignette 4 | 39.9% | 29.1% | 11.1% | 22.9% | 29.9% |
| | | Adjusted Residual | 3.5 | -.3 | -2.2 | -2.2 | |
| | General | Count | 74 ^a | 108 ^{a, b} | 19 ^b | 88 ^b | 289 |
| | | % within Vignette 4 | 42.8% | 55.1% | 70.4% | 57.5% | 52.6% |
| | | Adjusted Residual | -3.1 | .9 | 1.9 | 1.4 | |
| | Missing | Count | 8 ^a | 9 ^a | 1 ^a | 7 ^a | 25 |
| | | % within Vignette 4 | 4.6% | 4.6% | 3.7% | 4.6% | 4.6% |
| | | Adjusted Residual | .1 | .0 | -.2 | .0 | |
| Total | Count | 173 | 196 | 27 | 153 | 549 | |
| | % within Vignette 4 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

Each subscript letter denotes a subset of Vignette 4 categories whose column proportions do not differ significantly from each other at the .05 level.

Having a disability was significantly associated with vignette score choice in that observed and expected scores were significantly different ($\chi^2(3, 549)=9.34$, $p=0.026$; $V=0.13$). In the group who had a disability, the ASR was significant for

choosing D1 (14.5%, $z=3.00$, $p<0.01$) and D4 (5.2%, $z=-2.00$, $p<0.05$). This was mirrored in the group who did not have a disability with differences between D1 (85.5%, $z=-3.00$, $p<0.01$) and D4 (94.8%, $z=2.00$, $p<0.05$) as well.

Crosstab

| | | Vignette 4 | | | | Total | |
|---|-----|---------------------|------------------|---------------------|--------------------|------------------|--------|
| | | 1 | 2 | 3 | 4 | | |
| Disability - broad incl other in disability | Yes | Count | 25 ^a | 15 ^{a, b} | 2 ^{a, b} | 8 ^b | 50 |
| | | % within Vignette 4 | 14.5% | 7.7% | 7.4% | 5.2% | 9.1% |
| | | Adjusted Residual | 3.0 | -.9 | -.3 | -2.0 | |
| | No | Count | 148 ^a | 181 ^{a, b} | 25 ^{a, b} | 145 ^b | 499 |
| | | % within Vignette 4 | 85.5% | 92.3% | 92.6% | 94.8% | 90.9% |
| | | Adjusted Residual | -3.0 | .9 | .3 | 2.0 | |
| Total | | Count | 173 | 196 | 27 | 153 | 549 |
| | | % within Vignette 4 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Each subscript letter denotes a subset of Vignette 4 categories whose column proportions do not differ significantly from each other at the .05 level.

Positions related to Brexit was significantly associated with vignette score choice in that observed and expected scores were significantly different ($\chi^2(6, 549)=36.77$, $p<0.001$; $V=0.18$). Remainders chose D2 (87.8%, $z=3.2$, $p<0.01$) more than expected and D4 (58.1%, $z=-3.9$, $p<0.001$) less than expected. The opposite pattern was observed with the Leaver group with D4 (15%, $z=3.2$, $p<0.01$) being privileged over D2 (4.1%, $z=-2.9$, $p<0.01$). People in the 'other' group were also observed to choose D4 (16.3%, $z=2.6$, $p<0.01$) more than expected.

Crosstab

| | | Vignette 4 | | | | Total | |
|---|----------|---------------------|--------------------|------------------|--------------------|------------------|--------|
| | | 1 | 2 | 3 | 4 | | |
| Thinking about Britain's relationship with the European Union, do you think of yourself as a 'Remainer', a 'Leaver', or do you not think of yourself in that way? - Selected Choice | Remainer | Count | 146 ^a | 172 ^a | 19 ^{a, b} | 105 ^b | 442 |
| | | % within Vignette 4 | 84.4% | 87.8% | 70.4% | 68.6% | 80.5% |
| | | Adjusted Residual | 1.6 | 3.2 | -1.4 | -4.4 | |
| | Leaver | Count | 13 ^{a, b} | 8 ^b | 4 ^{a, b} | 23 ^a | 48 |
| | | % within Vignette 4 | 7.5% | 4.1% | 14.8% | 15.0% | 8.7% |
| | | Adjusted Residual | -.7 | -2.9 | 1.1 | 3.2 | |
| | Other | Count | 14 ^a | 16 ^a | 4 ^a | 25 ^a | 59 |
| | | % within Vignette 4 | 8.1% | 8.2% | 14.8% | 16.3% | 10.7% |
| | | Adjusted Residual | -1.4 | -1.5 | .7 | 2.6 | |
| Total | | Count | 173 | 196 | 27 | 153 | 549 |
| | | % within Vignette 4 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Each subscript letter denotes a subset of Vignette 4 categories whose column proportions do not differ significantly from each other at the .05 level.

Identifying as party supporters was significantly associated with vignette score choice in that observed and expected scores were significantly different ($\chi^2(3, 549)=12.09, p=0.007; V=0.15$). Those who did support a party significantly preferred D1 (58.4%, $z=2.2, p<0.05$) rather than D4 (39.9%, $z=-3.4, p<0.001$). Contrarily, those who did not support a party chose D4 (60.1%, $z=3.4, p<0.001$) rather than D1 (41.6%, $z=-2.2, p<0.05$)

Crosstab

| | | Vignette 4 | | | | Total | |
|---|---------------------|---------------------|------------------|---------------------|--------------------|-----------------|-------|
| | | 1 | 2 | 3 | 4 | | |
| Generally speaking, do you think of yourself as a supporter of any one political party? | Yes | Count | 101 ^a | 106 ^{a, b} | 14 ^{a, b} | 61 ^b | 282 |
| | | % within Vignette 4 | 58.4% | 54.1% | 51.9% | 39.9% | 51.4% |
| | | Adjusted Residual | 2.2 | .9 | .1 | -3.4 | |
| | No | Count | 72 ^a | 90 ^{a, b} | 13 ^{a, b} | 92 ^b | 267 |
| | | % within Vignette 4 | 41.6% | 45.9% | 48.1% | 60.1% | 48.6% |
| | | Adjusted Residual | -2.2 | -.9 | -.1 | 3.4 | |
| Total | Count | 173 | 196 | 27 | 153 | 549 | |
| | % within Vignette 4 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

Each subscript letter denotes a subset of Vignette 4 categories whose column proportions do not differ significantly from each other at the .05 level.

Party identification was also significantly associated with vignette score choice ($\chi^2(12, 549)=41.51, p<0.001; V=0.16$). Significant column proportion differences were found in the scores of those who affiliated to the Conservative/ Brexit Party with D1 (4.6%, $z=-2.2, p<0.05$), however other columns did not have a significant ASR score.

Crosstab

| | | Vignette 4 | | | | Total | |
|--|--|---------------------|--------------------|--------------------|--------------------|--------------------|--------|
| | | 1 | 2 | 3 | 4 | | |
| If there were a general election tomorrow, which political party do you think you would be most likely to support? - Selected Choice | Conservative/Brexit | Count | 8 ^a | 14 ^{a, b} | 5 ^b | 19 ^{a, b} | 46 |
| | | % within Vignette 4 | 4.6% | 7.1% | 18.5% | 12.5% | 8.4% |
| | | Adjusted Residual | -2.2 | -.8 | 1.9 | 2.1 | |
| | Labour | Count | 110 ^a | 131 ^a | 14 ^{a, b} | 74 ^b | 329 |
| | | % within Vignette 4 | 63.6% | 66.8% | 51.9% | 48.7% | 60.0% |
| | | Adjusted Residual | 1.2 | 2.4 | -.9 | -3.4 | |
| | None | Count | 10 ^{a, b} | 9 ^b | 6 ^c | 20 ^{a, c} | 45 |
| | | % within Vignette 4 | 5.8% | 4.6% | 22.2% | 13.2% | 8.2% |
| | | Adjusted Residual | -1.4 | -2.3 | 2.7 | 2.6 | |
| | Other answer (LibDem, Playd, SNP, etc) | Count | 19 ^a | 26 ^a | 2 ^a | 26 ^a | 73 |
| | | % within Vignette 4 | 11.0% | 13.3% | 7.4% | 17.1% | 13.3% |
| | | Adjusted Residual | -1.1 | .0 | -.9 | 1.6 | |
| | Green Party | Count | 26 ^a | 16 ^a | 0 ^a | 13 ^a | 55 |
| | | % within Vignette 4 | 15.0% | 8.2% | 0.0% | 8.6% | 10.0% |
| | | Adjusted Residual | 2.6 | -1.1 | -1.8 | -.7 | |
| | Total | Count | 173 | 196 | 27 | 152 | 548 |
| | | % within Vignette 4 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Each subscript letter denotes a subset of Vignette 4 categories whose column proportions do not differ significantly from each other at the .05 level.

Vignette 5:

Age ($\chi^2(9, 549)=28.66, p<0.001, V=.132$) was significantly associated with vignette score choice in that observed and expected scores were significantly different. Due to more than 20% of cells containing under 5 cases, FHFE test was carried out (FFH=26,37, $p<0.001$). In 18-30 years olds, the adjusted standardised residual (ASR) was significant for D2 ($z=-2.2, p<0.05$) but not on the other ASR scores. In 61-75 year olds, the ASR was significant for D1 ($z=-2.7, p<0.01$) and D2 ($z=3.9, p<0.001$).

Crosstab

| | | Vignette 5 | | | | Total | |
|---------|---------------------|---------------------|------------------|-------------------|-------------------|-----------------|-------|
| | | 1 | 2 | 3 | 4 | | |
| AGE CAT | 18-30 | Count | 120 ^a | 26 ^b | 3 ^{a, b} | 16 ^a | 165 |
| | | % within Vignette 5 | 32.5% | 19.7% | 30.0% | 42.1% | 30.1% |
| | | Adjusted Residual | 1.8 | -3.0 | .0 | 1.7 | |
| 31-45 | Count | 162 ^a | 68 ^a | 4 ^a | 11 ^a | 245 | |
| | % within Vignette 5 | 43.9% | 51.5% | 40.0% | 28.9% | 44.6% | |
| | Adjusted Residual | -.5 | 1.8 | -.3 | -2.0 | | |
| 46-60 | Count | 69 ^a | 19 ^a | 3 ^a | 10 ^a | 101 | |
| | % within Vignette 5 | 18.7% | 14.4% | 30.0% | 26.3% | 18.4% | |
| | Adjusted Residual | .3 | -1.4 | 1.0 | 1.3 | | |
| 61-75 | Count | 18 ^a | 19 ^b | 0 ^{a, b} | 1 ^{a, b} | 38 | |
| | % within Vignette 5 | 4.9% | 14.4% | 0.0% | 2.6% | 6.9% | |
| | Adjusted Residual | -2.7 | 3.9 | -.9 | -1.1 | | |
| Total | Count | 369 | 132 | 10 | 38 | 549 | |
| | % within Vignette 5 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

Each subscript letter denotes a subset of Vignette 5 categories whose column proportions do not differ significantly from each other at the .05 level.

Religious childhood ($\chi^2(3, 549)=8.00, p=0.046; V=0.12,$) was significantly associated with vignette score choice. However, no residual appeared significant.

Crosstab

| | | Vignette 5 | | | | Total | |
|-----------------------|---------------------|---------------------|------------------|-----------------|-----------------|-----------------|-------|
| | | 1 | 2 | 3 | 4 | | |
| PrevRELIYESNO | Religious | Count | 224 ^a | 96 ^a | 8 ^a | 27 ^a | 355 |
| | | % within Vignette 5 | 60.7% | 72.7% | 80.0% | 71.1% | 64.7% |
| | | Adjusted Residual | -2.8 | 2.2 | 1.0 | .9 | |
| Not religious/missing | Count | 145 ^a | 36 ^a | 2 ^a | 11 ^a | 194 | |
| | % within Vignette 5 | 39.3% | 27.3% | 20.0% | 28.9% | 35.3% | |
| | Adjusted Residual | 2.8 | -2.2 | -1.0 | -.9 | | |
| Total | Count | 369 | 132 | 10 | 38 | 549 | |
| | % within Vignette 5 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

Each subscript letter denotes a subset of Vignette 5 categories whose column proportions do not differ significantly from each other at the .05 level.

Party identification was also significantly associated with vignette score choice $\chi^2(12, 549)=32.17, p=0.001; V=0.14, (29,96, p<0.001)$. Significant column proportion differences were found in the scores of those who affiliated to the Conservative or Brexit Party with D1 (4.9%, $z=-4.3, p<0.001$) and D2 (13.6%, $z=2.5, p<0.05$) as well as differences between D1 and D4 (21.6%, $z=3.0, p<0.01$).

Crosstab

| | | | Vignette 5 | | | | |
|--|--|---------------------|------------------|-----------------|-------------------|-----------------|-------|
| | | | 1 | 2 | 3 | 4 | Total |
| If there were a general election tomorrow, which political party do you think you would be most likely to support? - Selected Choice | Conservative/Brexit | Count | 18 _a | 18 _b | 2 _{a, b} | 8 _b | 46 |
| | | % within Vignette 5 | 4.9% | 13.6% | 20.0% | 21.6% | 8.4% |
| | | Adjusted Residual | -4.3 | 2.5 | 1.3 | 3.0 | |
| | Labour | Count | 232 _a | 73 _a | 5 _a | 19 _a | 329 |
| | | % within Vignette 5 | 62.9% | 55.3% | 50.0% | 51.4% | 60.0% |
| | | Adjusted Residual | 1.9 | -1.3 | -.7 | -1.1 | |
| | None | Count | 29 _a | 8 _a | 1 _a | 7 _a | 45 |
| | | % within Vignette 5 | 7.9% | 6.1% | 10.0% | 18.9% | 8.2% |
| | | Adjusted Residual | -.4 | -1.0 | .2 | 2.5 | |
| | Other answer (LibDem, Playd, SNP, etc) | Count | 50 _a | 19 _a | 2 _a | 2 _a | 73 |
| | | % within Vignette 5 | 13.6% | 14.4% | 20.0% | 5.4% | 13.3% |
| | | Adjusted Residual | .2 | .4 | .6 | -1.5 | |
| | Green Party | Count | 40 _a | 14 _a | 0 _a | 1 _a | 55 |
| | | % within Vignette 5 | 10.8% | 10.6% | 0.0% | 2.7% | 10.0% |
| | | Adjusted Residual | .9 | .2 | -1.1 | -1.5 | |
| Total | Count | 369 | 132 | 10 | 37 | 548 | |
| | % within Vignette 5 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

Each subscript letter denotes a subset of Vignette 5 categories whose column proportions do not differ significantly from each other at the .05 level.

Vignette 6:

Age ($\chi^2(9, 549)=22.75, p=0.007, V=0.118$) was significantly associated with vignette score choice in that observed and expected scores were significantly different. Due to more than 20% of cells containing under 5 cases, Fisher-Friedman test was carried out (FFH=28,85, $p=0.004$). In 18-30 years olds, the adjusted standardised residual (ASR) was significant for D2 ($z=-2.2, p<0.05$). In 61-65 year olds, the ASR was significant for D1 ($z=-2.7, p<0.01$) and D2 ($z=3.9, p<0.001$).

Crosstab

| | | Vignette 6 | | | | Total | |
|---------|-------|---------------------|---------------------|-----------------|-------------------|-----------------|--------|
| | | 1 | 2 | 3 | 4 | | |
| AGE CAT | 18-30 | Count | 88 _a | 44 _a | 6 _a | 27 _a | 165 |
| | | % within Vignette 6 | 30.0% | 25.9% | 40.0% | 38.0% | 30.1% |
| | | Adjusted Residual | .0 | -1.4 | .9 | 1.6 | |
| | 31-45 | Count | 128 _{a, b} | 91 _b | 4 _{a, b} | 22 _a | 245 |
| | | % within Vignette 6 | 43.7% | 53.5% | 26.7% | 31.0% | 44.6% |
| | | Adjusted Residual | -.5 | 2.8 | -1.4 | -2.5 | |
| | 46-60 | Count | 62 _a | 20 _a | 2 _a | 17 _a | 101 |
| | | % within Vignette 6 | 21.2% | 11.8% | 13.3% | 23.9% | 18.4% |
| | | Adjusted Residual | 1.8 | -2.7 | -.5 | 1.3 | |
| | 61-75 | Count | 15 _a | 15 _a | 3 _a | 5 _a | 38 |
| | | % within Vignette 6 | 5.1% | 8.8% | 20.0% | 7.0% | 6.9% |
| | | Adjusted Residual | -1.8 | 1.2 | 2.0 | .0 | |
| Total | | Count | 293 | 170 | 15 | 71 | 549 |
| | | % within Vignette 6 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Each subscript letter denotes a subset of Vignette 6 categories whose column proportions do not differ significantly from each other at the .05 level.

Job types was significantly associated with vignette score choice in that observed and expected scores were significantly difference ($\chi^2(9, 549)=24.03, p=0.004; V=0.12$). Due to more than 20% of cells containing under 5 cases, Fisher-Friedman test was carried out (FFH=24.82, $p=0.001$). The ASR was significant for D3 (0.0%; $z=-2.6, p <0.01$) in those who worked in social and healthcare and D3 scores for those who were not currently working (33.3%; $z=2.4, p <0.05$). It also was significant in D4 for those who worked in healthcare (14.1%, $z=-3.1, p <0.01$) and those who had a general job (64.8%, $z=2.2, p <0.05$).

Crosstab

| | | | Vignette 6 | | | | Total |
|---------------|--|---------------------|------------------|-----------------|-----------------|-----------------|-------|
| | | | 1 | 2 | 3 | 4 | |
| JOBROADMERGED | Unemployed/Stay at home parent/house spouse/students/retired | Count | 35 _a | 18 _a | 5 _a | 13 _a | 71 |
| | | % within Vignette 6 | 11.9% | 10.6% | 33.3% | 18.3% | 12.9% |
| | | Adjusted Residual | -.7 | -1.1 | 2.4 | 1.4 | |
| | Mental and physical health and social care | Count | 96 _a | 58 _a | 0 _b | 10 _b | 164 |
| | | % within Vignette 6 | 32.8% | 34.1% | 0.0% | 14.1% | 29.9% |
| | | Adjusted Residual | 1.6 | 1.5 | -2.6 | -3.1 | |
| | General | Count | 148 _a | 85 _a | 10 _a | 46 _a | 289 |
| | | % within Vignette 6 | 50.5% | 50.0% | 66.7% | 64.8% | 52.6% |
| | | Adjusted Residual | -1.1 | -.8 | 1.1 | 2.2 | |
| | Missing | Count | 14 _a | 9 _a | 0 _a | 2 _a | 25 |
| | | % within Vignette 6 | 4.8% | 5.3% | 0.0% | 2.8% | 4.6% |
| | | Adjusted Residual | .3 | .6 | -.9 | -.8 | |
| Total | Count | 293 | 170 | 15 | 71 | 549 | |
| | % within Vignette 6 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

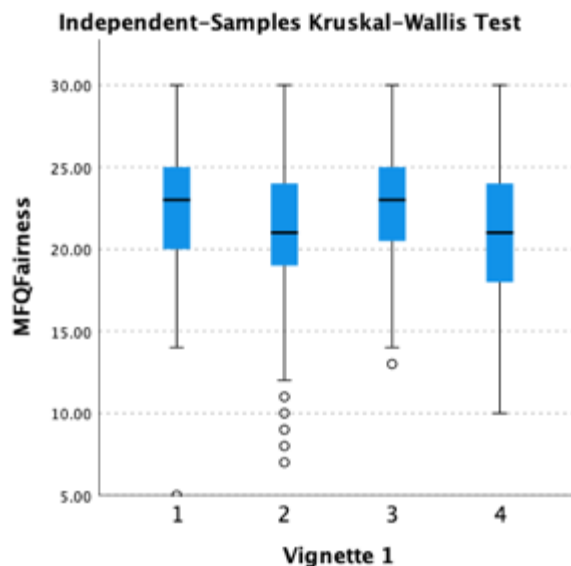
Each subscript letter denotes a subset of Vignette 6 categories whose column proportions do not differ significantly from each other at the .05 level.

6.22. Appendix V - Post-Hoc Dunn's Test for pairwise comparison after Kruskal Wallis Analyses – including box-plots

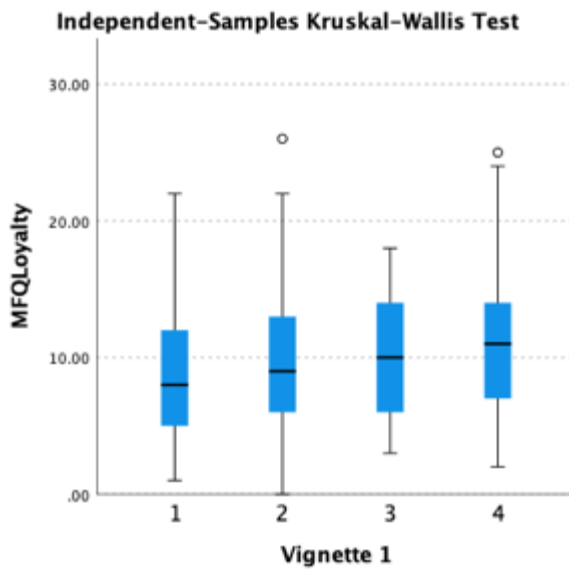
Pairwise comparisons were performed using Dunn's (1964) procedure where initial results showed significance. Adjusted significance were used in post-hoc test and followed the Bonferroni correction procedure.

Vignette 1:

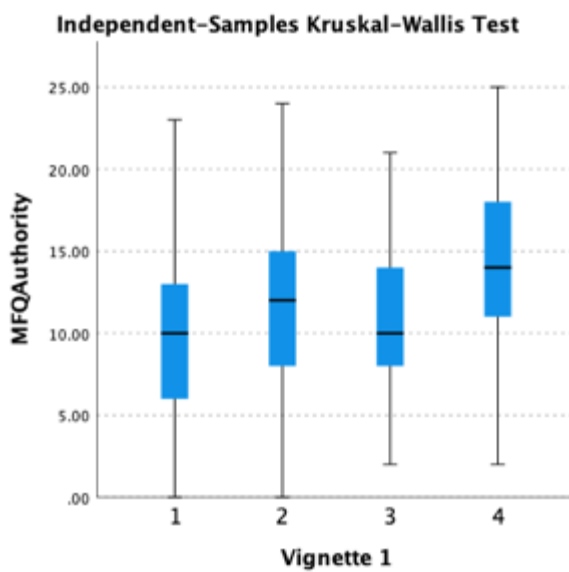
The mean rank of MFQFairness scores were statistically significantly different between the different scores on Vignette 1, $\chi^2(3)=13.99$, $p=.003$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V1 between D1 (mean rank (mr)=306.82) and D4 (mean rank) ($p=.050$); and between D1 and D2 (mr=256.64) ($p=0.008$), but not between any other group combination.



The mean rank of MFQLoyalty scores were statistically significantly different between the different scores on Vignette 1, $\chi^2(3)=13.54$, $p=.004$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V1 between D1 (mr=245.94) and D4 (mr=319.87) ($p=0.002$); but not between any other group combination.

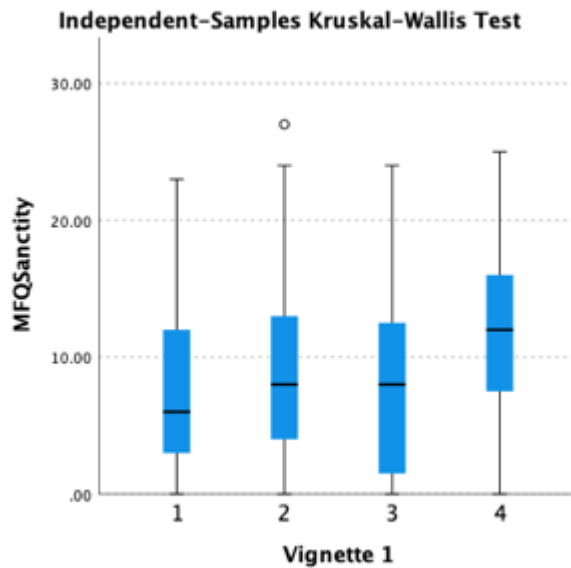


The mean rank of MFQAuthority scores were statistically significantly different between the different scores on Vignette 1, $\chi^2(3)=39.47$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V1 between D1 (mr=225.93) and D4 (mr=349.55) ($p<0.001$); D1 and D2 (mr=283.51) ($p=0.001$); D3 (mr=245.92) and D4 ($p=0.009$); D2 and 4 ($p=0.003$) but not between any other group combination.

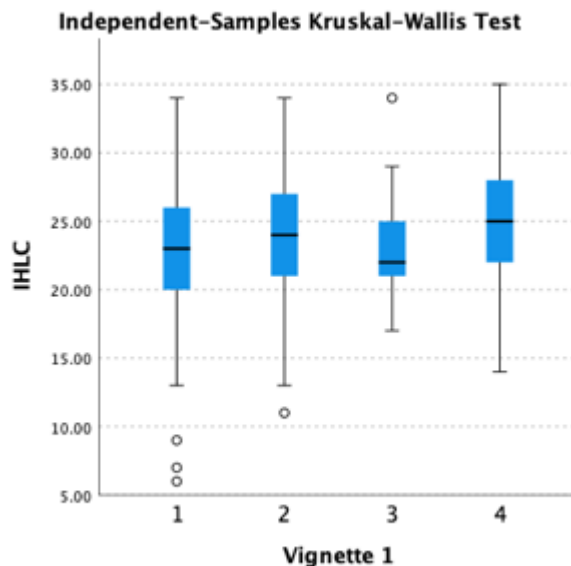


The mean rank of MFQSanctity scores were statistically significantly different between the different scores on Vignette 1, $\chi^2(3)=31.77$, $p<0.001$. Subsequently,

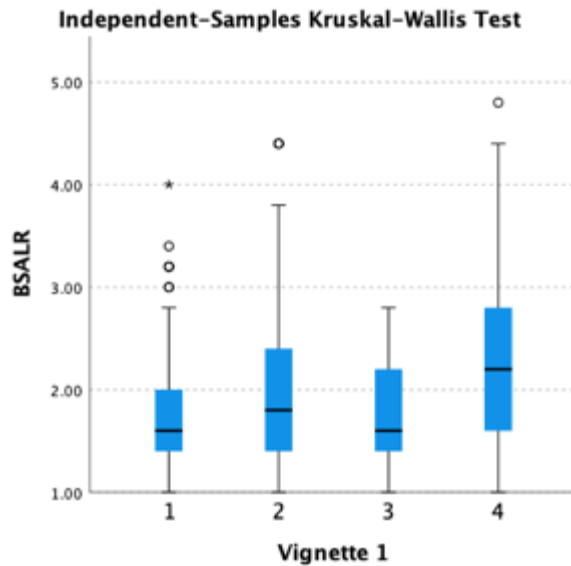
pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V1 between D1 (mr=242.35) and D4 (mr=352.59) ($p < 0.001$); D3 (mr=241.89.92) and D4 ($p = 0.004$); D2 (mr=271.66) and D4 ($p < 0.001$) but not between any other group combination.



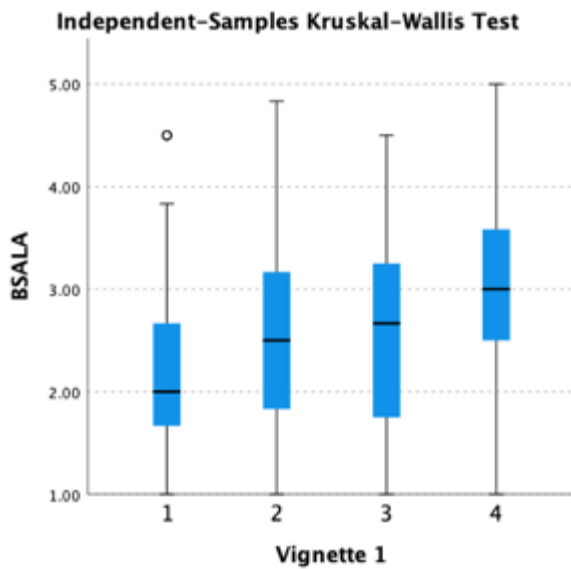
The mean rank of IHLC scores were statistically significantly different between the different scores on Vignette 1, $\chi^2(3) = 18.12$, $p < 0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V1 between D1 (mr=240.63) and D4 (mr=321.85) ($p < 0.001$); and D1 and D2 (mr=283.75) ($p = 0.036$) but not between any other group combination.



The mean rank of BSALR scores were statistically significantly different between the different scores on Vignette 1, $\chi^2(3)=34.74$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V1 between D1 (mr=228.61) and D2 (mr=285.20) ($p=0.002$); and D1 and D4 (mr=342.26) ($p<0.001$); D3 (mr=240.02) and D4 ($p=0.010$); and D2 and D4 ($p=0.016$) but not between any other group combination.



The mean rank of BSALA scores were statistically significantly different between the different scores on Vignette 1, $\chi^2(3)=67.11$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V1 between D1 (mr=210.29) and D2 (mr=279.04) ($p<0.001$); D1 and D4 (mr=374.76) ($p<0.001$); and D2 and D4 ($p<0.001$) but not between any other group combination.



The mean rank of BSAWS scores were statistically significantly different between the different scores on Vignette 1, $\chi^2(3)=80.79$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V1 between D1 (mr=211.30) and D2 (mr=270.82) ($p=0.03$); and D1 and D3 (mean rank=297.82); D2 and D4 ($p<0.001$); and D3 and D4 ($p<0.001$) but not on D3 and D4.

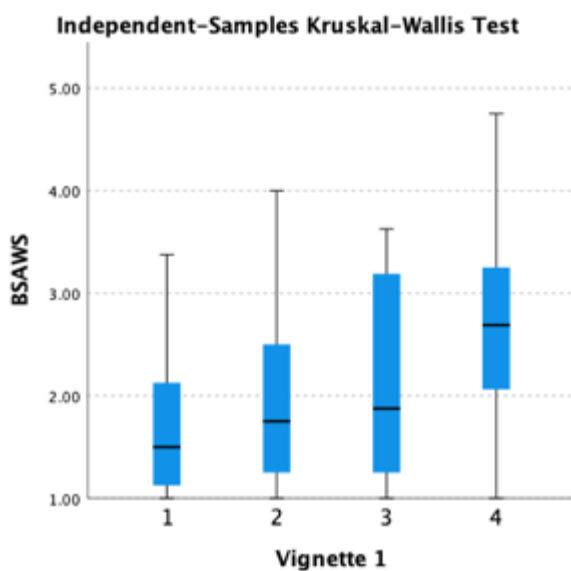
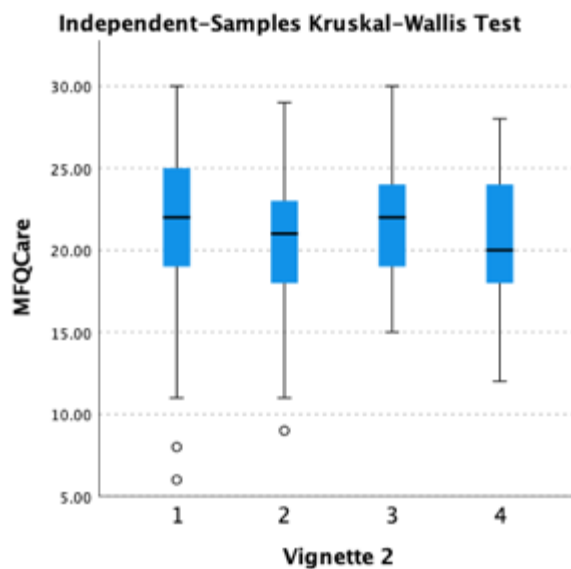


Table 17. Mean ranks for Vignette 1

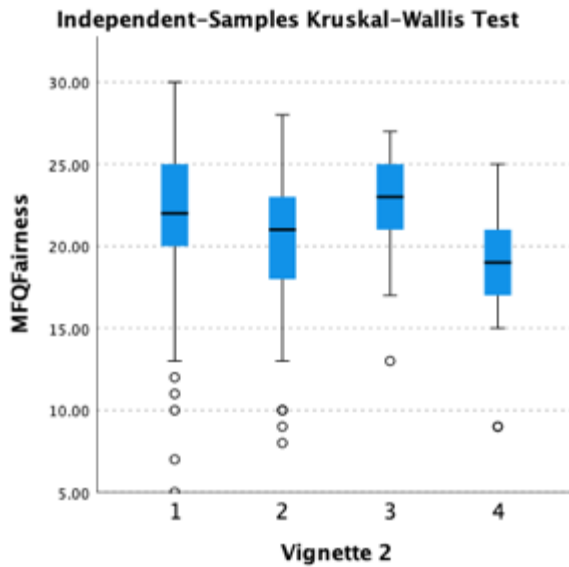
| V1 | N | Ranks | H | P | ϵ^2 |
|--------------|-------|--------|-------|---------|--------------|
| MFQCare | 1=171 | 293.82 | 4.10 | 0.251 | 0.05 |
| | 2=251 | 262.13 | | | |
| | 3=91 | 271.79 | | | |
| | 4=37 | 276.15 | | | |
| MFQFairness | 1=171 | 306.82 | 13.99 | 0.003* | 0.05 |
| | 2=251 | 256.64 | | | |
| | 3=91 | 314.35 | | | |
| | 4=37 | 253.60 | | | |
| MFQLoyalty | 1=171 | 245.94 | 13.54 | 0.004* | 0.10 |
| | 2=251 | 277.18 | | | |
| | 3=91 | 278.65 | | | |
| | 4=37 | 319.87 | | | |
| MFQAuthority | 1=171 | 225.93 | 39.47 | <0.001* | 0.11 |
| | 2=251 | 283.51 | | | |
| | 3=91 | 245.92 | | | |
| | 4=37 | 349.55 | | | |
| MFQSanctity | 1=171 | 242.35 | 31.77 | <0.001* | 0.08 |
| | 2=251 | 271.66 | | | |
| | 3=91 | 241.89 | | | |
| | 4=37 | 352.59 | | | |
| PHLC | 1=171 | 279.00 | 0.46 | 0.927 | 0.03 |
| | 2=251 | 271.06 | | | |
| | 3=91 | 267.19 | | | |
| | 4=37 | 280.69 | | | |
| IHLC | 1=171 | 240.63 | 18.12 | <0.001* | 0.07 |
| | 2=251 | 283.75 | | | |
| | 3=91 | 248.69 | | | |
| | 4=37 | 321.85 | | | |
| CHLC | 1=171 | 268.60 | 5.50 | 0.139 | 0.04 |
| | 2=251 | 275.39 | | | |
| | 3=91 | 337.60 | | | |
| | 4=37 | 265.16 | | | |
| BSALR | 1=171 | 228.61 | 34.74 | <0.001* | 0.08 |
| | 2=251 | 285.20 | | | |
| | 3=91 | 240.02 | | | |
| | 4=37 | 342.26 | | | |
| BSA LA | 1=171 | 210.29 | 67.11 | <0.001* | 0.18 |
| | 2=251 | 279.04 | | | |
| | 3=91 | 290.34 | | | |
| | 4=37 | 374.76 | | | |
| BSA WS | 1=171 | 211.30 | 80.79 | <0.001* | 0.18 |
| | 2=251 | 270.82 | | | |
| | 3=91 | 297.82 | | | |
| | 4=37 | 391.82 | | | |

Vignette 2

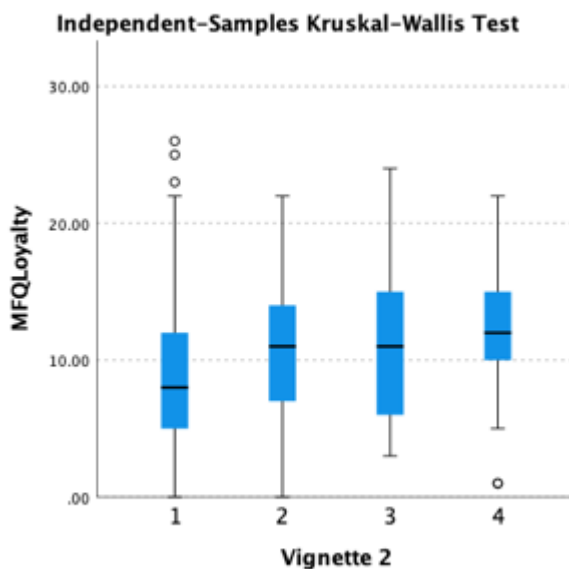
The mean rank of MFQCare scores were statistically significantly different between the different scores on V2, $\chi^2(3)=10.98$, $p=0.012$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V2 between D1 ($mr=291.99$) and D2 ($mr=244.46$) ($p=0.009$); but not between any other group combination.



The mean rank of MFQFairness scores were statistically significantly different between the different scores on V2, $\chi^2(3)=28.49$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V2 between D1 ($mr=298.90$) and D2 ($mr=236.23$) ($p<0.001$); D1 and D4 ($mr=172.54$) ($p<0.001$); and D3 ($mr=310.86$) and D4 ($p=0.023$); but not between any other group combination.

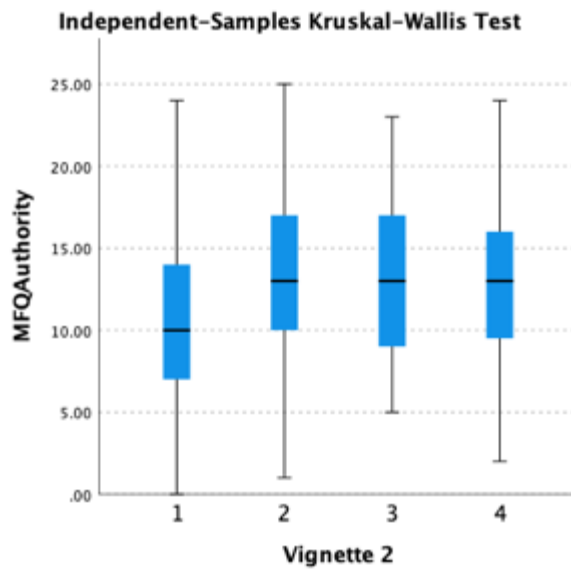


The mean rank of MFQLoyalty scores were statistically significantly different between the different scores on V2, $\chi^2(3)=25.73$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V2 between D1 (mr=248.50) and D2 (mr=314.66) ($p<0.001$) ; D1 and D4 (mr=348.89) ($p=0.020$); but not between any other group combination.

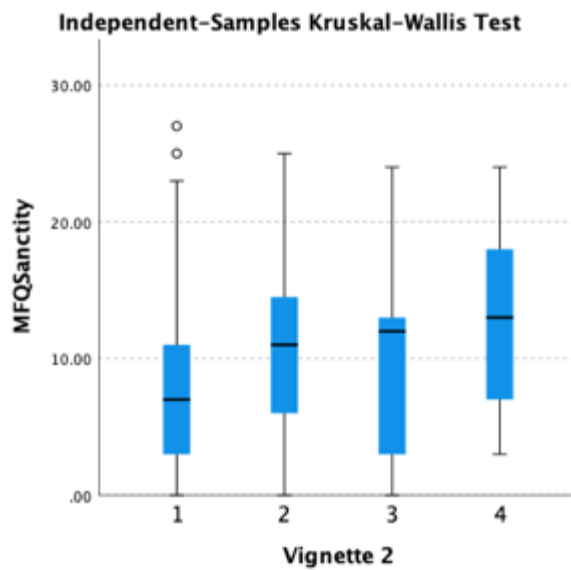


The mean rank of MFQ Authority scores were statistically significantly different between the different scores on V2, $\chi^2(3)=43.99$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences

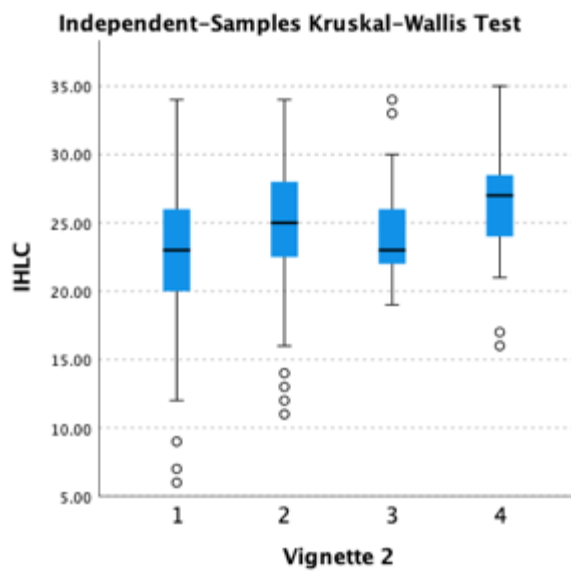
in scores on V2 between D1 (mr=239.76) and D2 (mr=334.95) ($p<0.001$) but not between any other group combination.



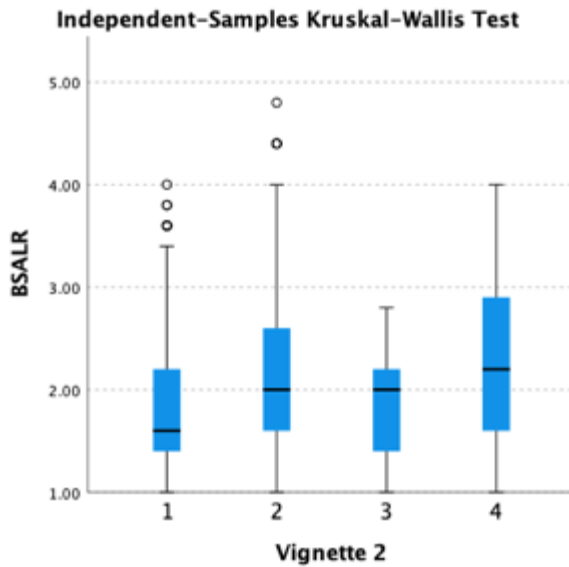
The mean rank of MFQSanctity scores were statistically significantly different between the different scores on V2, $\chi^2(3)=43.12$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V2 between D1 (mr=241.28) and D2 (mr=325.87) ($p<0.001$); and D1 and D4 (mr=380.20) ($p<0.001$) but not between any other group combination.



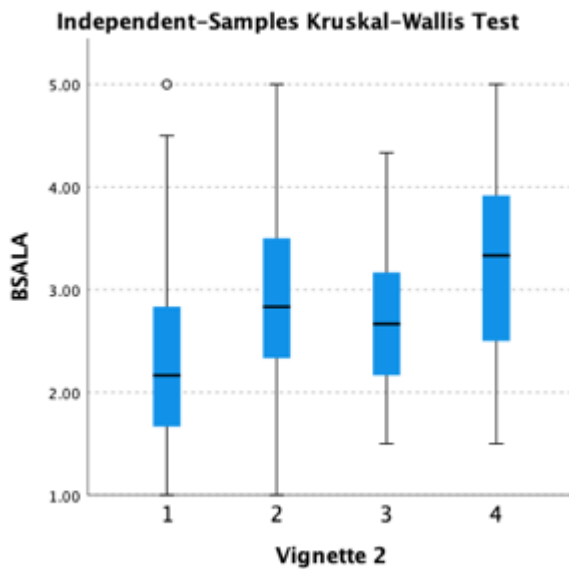
The mean rank of IHLC scores were statistically significantly different between the different scores on V2, $\chi^2(3)=32.67$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V2 between D1 (mr=245.96) and D2 (mr=320.38) ($p<0.001$); and D1 and D4 (mr=365.30) ($p=0.003$) but not between any other group combination.



The mean rank of BSALR scores were statistically significantly different between the different scores on V2, $\chi^2(3)=35.46$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V2 between D1 (mr=244.49) and D2 (mr=329.50) ($p<0.001$) but not between any other group combination.



The mean rank of BSALA scores were statistically significantly different between the different scores on V2, $\chi^2(3)=77.65$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V2 between D1 (mr=228.82) and D2 (mr=348.77) ($p<0.001$); and D1 and D4 (mr=388.26) ($p<0.001$) but not between any other group combination.



The mean rank of BSAWS scores were statistically significantly different between the different scores on V2, $\chi^2(3)=95.29$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in

scores on V2 between D1 (mr=223.58) and D2 (mr=355.18) ($p < 0.001$); and D1 and D4 (mr=400.63) ($p = 0.003$) but not between any other group combination.

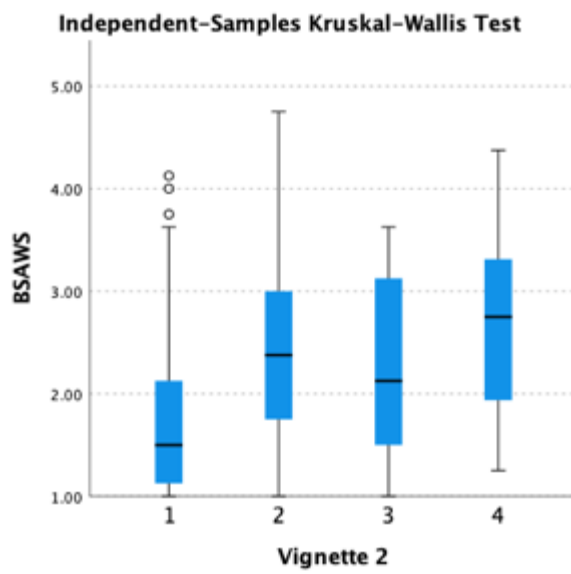
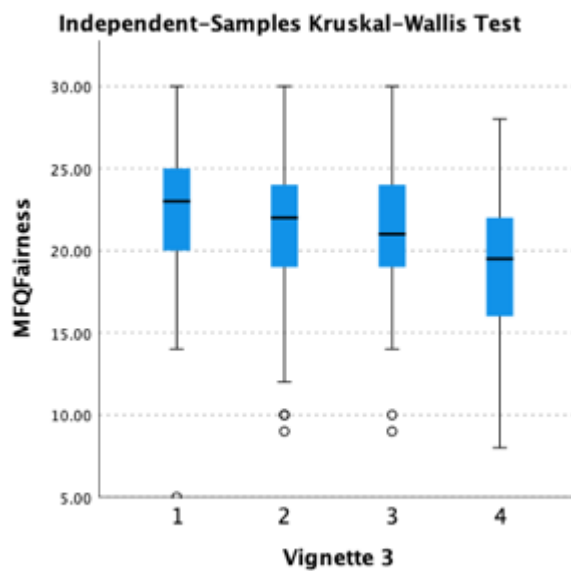


Table 18. Mean ranks for Vignette 2

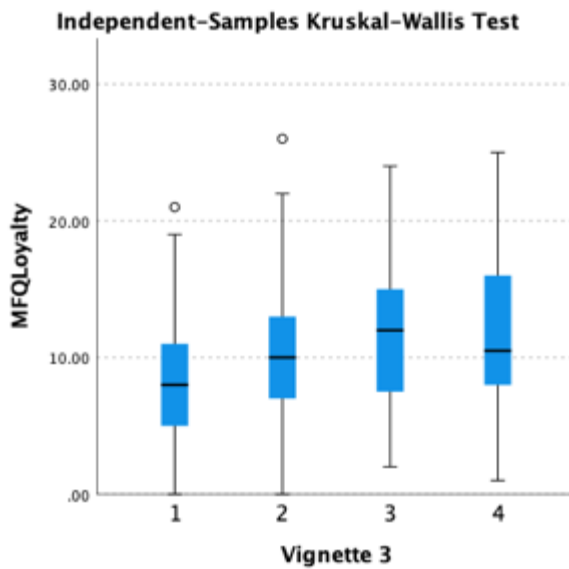
| V2 | N | Ranks | H | P | ξ^2 |
|--------------|-------|--------|-------|---------|---------|
| MFQCare | 1=338 | 291.99 | 10.98 | 0.012* | 0.06 |
| | 2=167 | 244.46 | | | |
| | 3=21 | 277.69 | | | |
| | 4=23 | 244.63 | | | |
| MFQFairness | 1=338 | 298.90 | 28.49 | <0.001* | 0.08 |
| | 2=167 | 236.23 | | | |
| | 3=21 | 310.86 | | | |
| | 4=23 | 172.54 | | | |
| MFQLoyalty | 1=338 | 248.50 | 25.73 | <0.001* | 0.10 |
| | 2=167 | 314.66 | | | |
| | 3=21 | 305.26 | | | |
| | 4=23 | 348.89 | | | |
| MFQAuthority | 1=338 | 239.76 | 43.99 | <0.001* | 0.12 |
| | 2=167 | 334.95 | | | |
| | 3=21 | 323.45 | | | |
| | 4=23 | 313.43 | | | |
| MFQSanctity | 1=338 | 241.28 | 43.12 | <0.001* | 0.13 |
| | 2=167 | 325.87 | | | |
| | 3=21 | 297.93 | | | |
| | 4=23 | 380.20 | | | |
| PHLC | 1=338 | 266.74 | 2.425 | 0.489 | 0.03 |
| | 2=167 | 287.64 | | | |
| | 3=21 | 287.33 | | | |
| | 4=23 | 293.39 | | | |
| IHLC | 1=338 | 245.96 | 32.67 | <0.001* | 0.09 |
| | 2=167 | 320.38 | | | |
| | 3=21 | 282.69 | | | |
| | 4=23 | 365.30 | | | |
| CHLC | 1=338 | 275.99 | 2.93 | 0.403 | 0.06 |
| | 2=167 | 282.64 | | | |
| | 3=21 | 248.74 | | | |
| | 4=23 | 228.93 | | | |
| BSALR | 1=338 | 244.49 | 35.46 | <0.001* | 0.09 |
| | 2=167 | 329.50 | | | |
| | 3=21 | 271.00 | | | |
| | 4=23 | 331.35 | | | |
| BSA LA | 1=338 | 228.82 | 77.65 | <0.001* | 0.20 |
| | 2=167 | 348.77 | | | |
| | 3=21 | 307.55 | | | |
| | 4=23 | 388.26 | | | |
| BSA WS | 1=338 | 223.58 | 95.29 | <0.001* | 0.21 |
| | 2=167 | 355.18 | | | |
| | 3=21 | 327.36 | | | |
| | 4=23 | 400.63 | | | |

Vignette 3

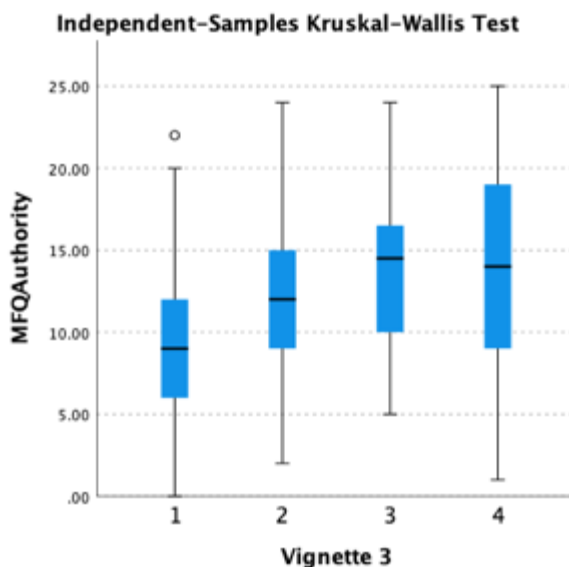
The mean rank of MFQ Fairness scores were statistically significantly different between the different scores on V3, $\chi^2(3)=30.65$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V3 between D1 (mr=319.11) and D2 (mr=258.95) ($p<0.001$); D1 and D3 (mr=258.20) ($p=0.045$); D1 and D4 (mr=193.89) ($p<0.001$), but not between any other group combination.



The mean rank of MFQLoyalty scores were statistically significantly different between the different scores on V3, $\chi^2(3)=37.81$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V3 between D1 (mr=223.11) and D2 (mr=291.79) ($p<0.001$); D1 and D3 (mr=336.31) ($p<0.001$); and D1 and D4 (mr=323.55) ($p<0.001$); but not between any other group combination.

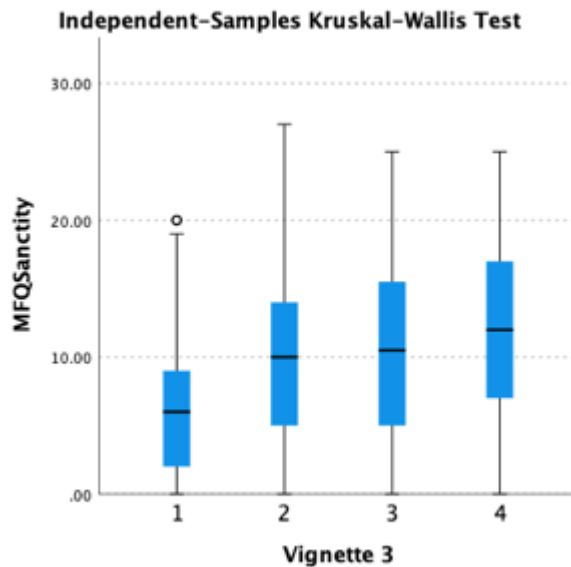


The mean rank of MFQ Authority scores were statistically significantly different between the different scores on V3, $\chi^2(3)=62.95$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V3 between D1 (mr=206.05) and D2 (mr=301.27) ($p<0.001$); D1 and D3 (mr=342.42) ($p<0.001$); and D1 and D4 (mr=338.27) ($p<0.001$); but not between any other group combination.

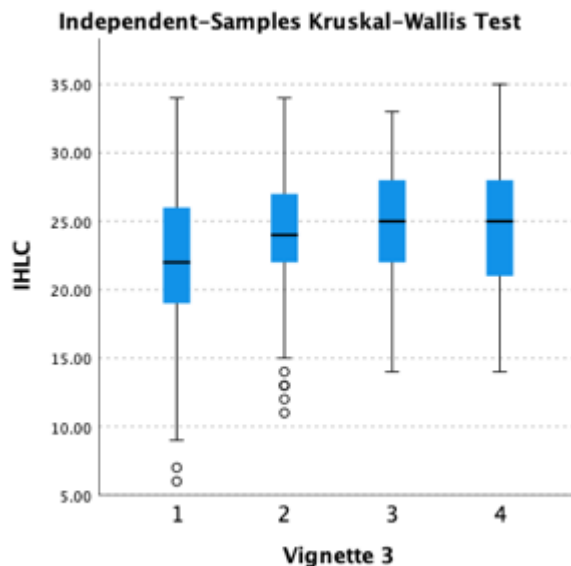


The mean rank of MFQSanctity scores were statistically significantly different between the different scores on V3, $\chi^2(3)=61.17$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in

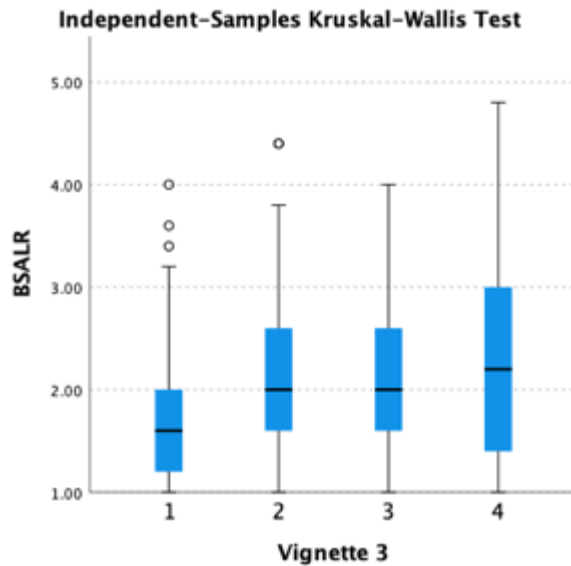
scores on V3 between D1 (mr=205.91) and D2 (mr=307.38) ($p<0.001$); D1 and D3 (mr=311.85) ($p<0.001$); and D1 and D4 (mr=349.27) ($p<0.001$); but not between any other group combination.



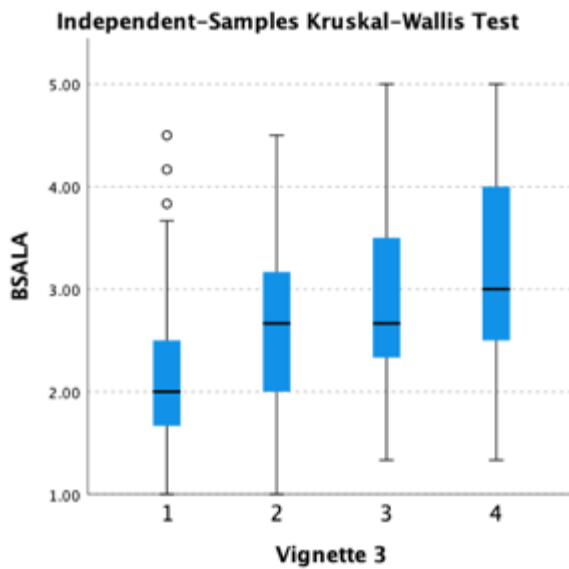
The mean rank of IHLC scores were statistically significantly different between the different scores on V3, $\chi^2(3)=23.88$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V3 between D1 (mr=232.53) and D2 (mr=292.22) ($p=0.001$); D1 and D3 (mr=321.35) ($p=0.001$) and D1 and D4 (mr=301.82) ($p=0.045$); but not between any other group combination.



The mean rank of BSALR scores were statistically significantly different between the different scores on V3, $\chi^2(3)=44.07$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V3 between D1 (mr=216.28) and D2 (mr=301.18) ($p<0.001$); D1 and D3 (mr=316.96) ($p<0.001$); D1 and D4 (mr=330.36) ($p<0.001$); and D2 and D4 ($p=0.004$) but not between any other group combination.



The mean rank of BSALA scores were statistically significantly different between the different scores on V3, $\chi^2(3)=92.26$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V3 between D1 (mr=192.44) and D2 (mr=303.12) ($p<0.001$); D1 and D3 (mr=340.23) ($p<0.001$); and D1 and D4 (mr=389.87) ($p<0.001$); but not between any other group combination.



The mean rank of BSAWS scores were statistically significantly different between the different scores on V2, $\chi^2(3)=106.31$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V3 between D1 (mr=191.31) and D2 (mr=298.61) ($p<0.001$); D1 and D3 (mr=348.14) ($p<0.001$); and D1 and D4 (mr=407.43) ($p<0.001$); and D2 and D4 ($p<0.001$) but not between any other group combination.

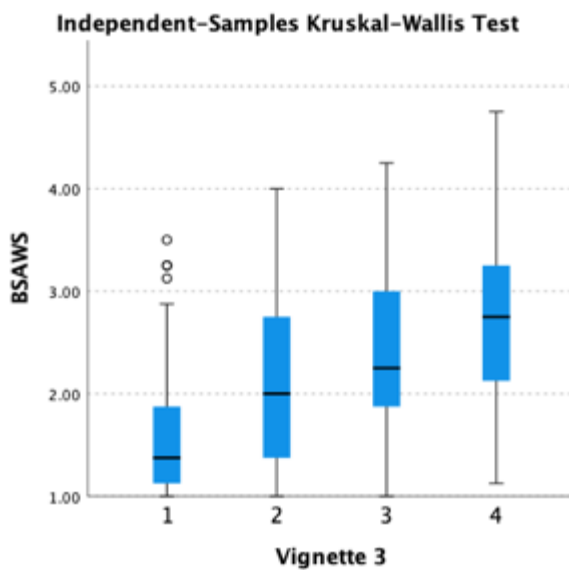
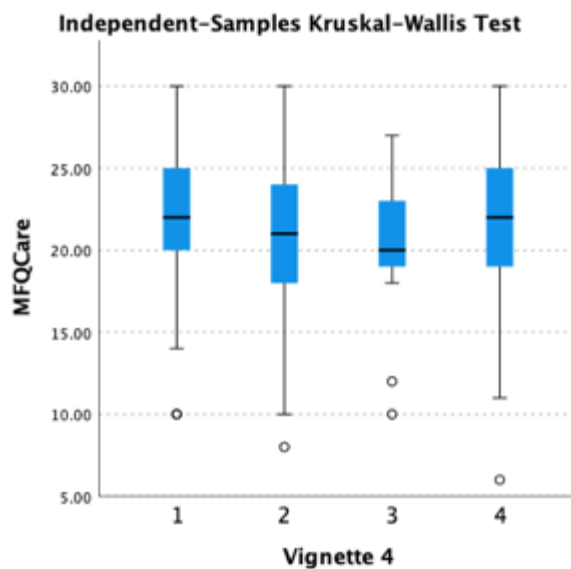


Table 19. Mean ranks for Vignette 3

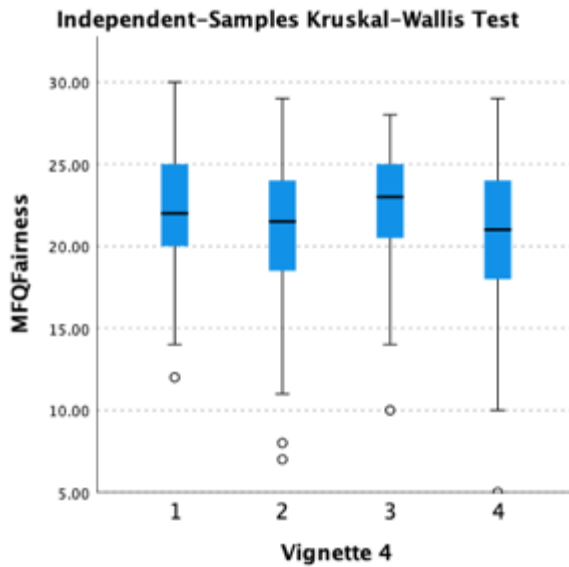
| V3 | N | Ranks | H | P | ϵ^2 |
|--------------|-------|--------|--------|---------|--------------|
| MFQCare | 1=197 | 291.82 | 6.36 | 0.095 | 0.08 |
| | 2=242 | 269.41 | | | |
| | 3=64 | 277.11 | | | |
| | 4=46 | 229.43 | | | |
| MFQFairness | 1=197 | 319.11 | 30.65 | <0.001* | 0.09 |
| | 2=242 | 258.95 | | | |
| | 3=64 | 258.20 | | | |
| | 4=46 | 193.89 | | | |
| MFQLoyalty | 1=197 | 223.11 | 37.81 | <0.001* | 0.10 |
| | 2=242 | 291.79 | | | |
| | 3=64 | 336.31 | | | |
| | 4=46 | 323.55 | | | |
| MFQAuthority | 1=197 | 206.05 | 62.95 | <0.001* | 0.15 |
| | 2=242 | 301.27 | | | |
| | 3=64 | 342.42 | | | |
| | 4=46 | 338.27 | | | |
| MFQSanctity | 1=197 | 205.91 | 61.17 | <0.001* | 0.13 |
| | 2=242 | 307.38 | | | |
| | 3=64 | 311.85 | | | |
| | 4=46 | 349.27 | | | |
| PHLC | 1=197 | 267.23 | 3.75 | 0.29 | 0.03 |
| | 2=242 | 285.92 | | | |
| | 3=64 | 281.43 | | | |
| | 4=46 | 241.87 | | | |
| IHLC | 1=197 | 232.53 | 23.88 | <0.001* | 0.08 |
| | 2=242 | 292.22 | | | |
| | 3=64 | 321.35 | | | |
| | 4=46 | 301.82 | | | |
| CHLC | 1=197 | 270.85 | 0.54 | 0.91 | 0.05 |
| | 2=242 | 275.76 | | | |
| | 3=64 | 274.30 | | | |
| | 4=46 | 289.74 | | | |
| BSALR | 1=197 | 216.28 | 44.07 | <0.001* | 0.10 |
| | 2=242 | 301.18 | | | |
| | 3=64 | 316.96 | | | |
| | 4=46 | 330.36 | | | |
| BSALA | 1=197 | 192.44 | 96.26 | <0.001* | 0.23 |
| | 2=242 | 303.12 | | | |
| | 3=64 | 340.23 | | | |
| | 4=46 | 389.87 | | | |
| BSA WS | 1=197 | 191.31 | 106.11 | <0.001* | 0.25 |
| | 2=242 | 298.61 | | | |
| | 3=64 | 348.14 | | | |
| | 4=46 | 407.43 | | | |

Vignette 4

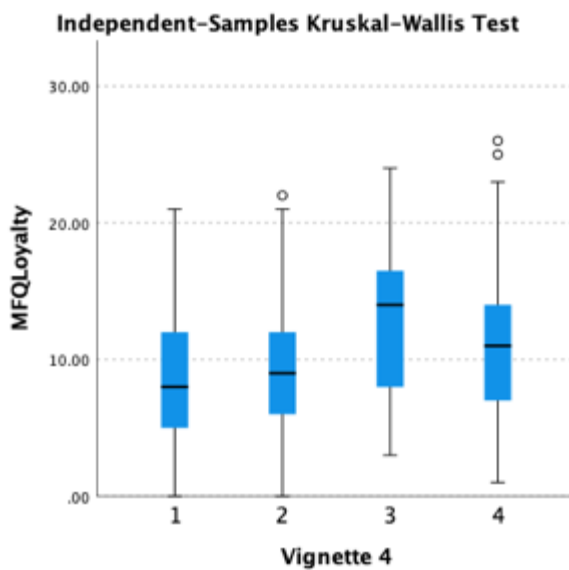
The mean rank of MFQCare scores were statistically significantly different between the different scores on V4, $\chi^2(3)=12.32$, $p=0.006$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V4 between D1 ($mr=295.83$) and D2 ($mr=246.56$) ($p=0.017$), but not between any other group combination.



The mean rank of MFQ Fairness scores were statistically significantly different between the different scores on V4, $\chi^2(3)=30.65$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V4 between D1 ($mr=312.24$) and D2 ($mr=257.21$) ($p=0.005$); and D1 and D4 ($mr=249.07$) ($p=0.002$), but not between any other group combination.

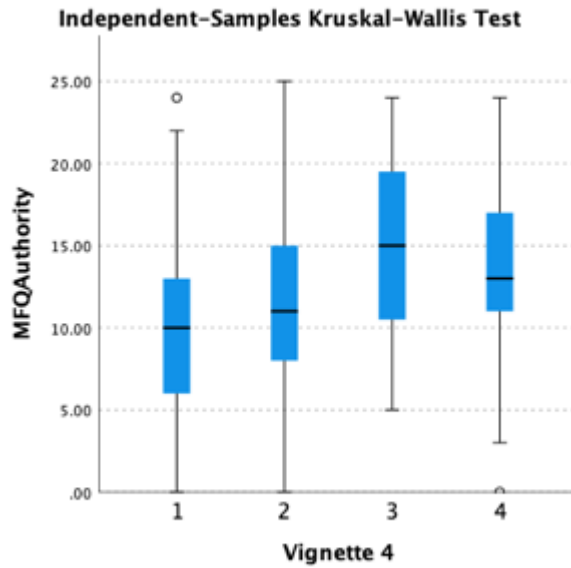


The mean rank of MFQLoyalty scores were statistically significantly different between the different scores on V4, $\chi^2(3)=26.33$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V4 between D1 (mr=244.43) and D3 (mr=357.48) ($p=0.003$); D2 (mr=258.40) and D3 ($p=0.014$); and D2 and D4 (mr=316.27) ($p=0.004$); but not between any other group combination.

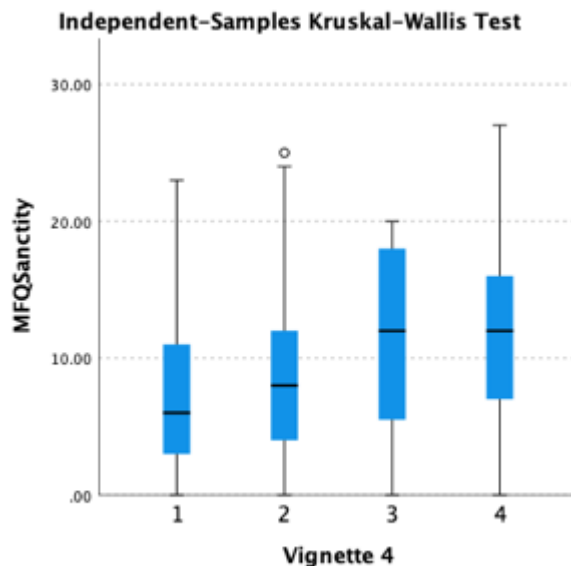


The mean rank of MFQ Authority scores were statistically significantly different between the different scores on V3, $\chi^2(3)=45.60$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences

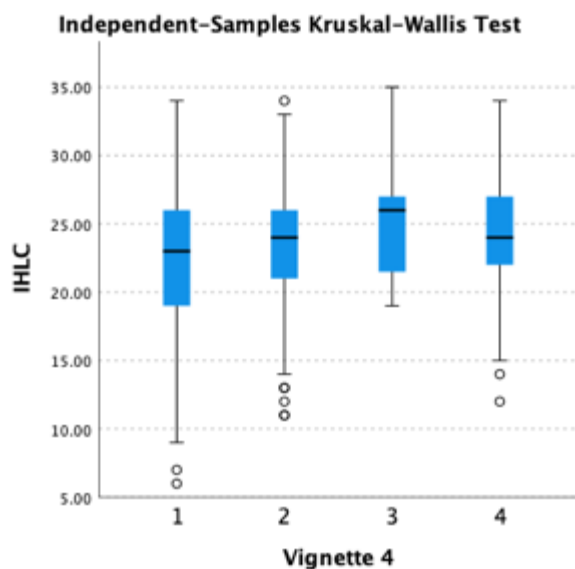
in scores on V4 between D1 (mr=224.43) and D3 (mr=357.48) ($p<0.001$); D1 and D4 (mr=316.27) ($p<0.001$); D2 (mr=258.40) and D3 ($p=0.040$); and D2 and D4 ($p<0.001$); but not between any other group combination.



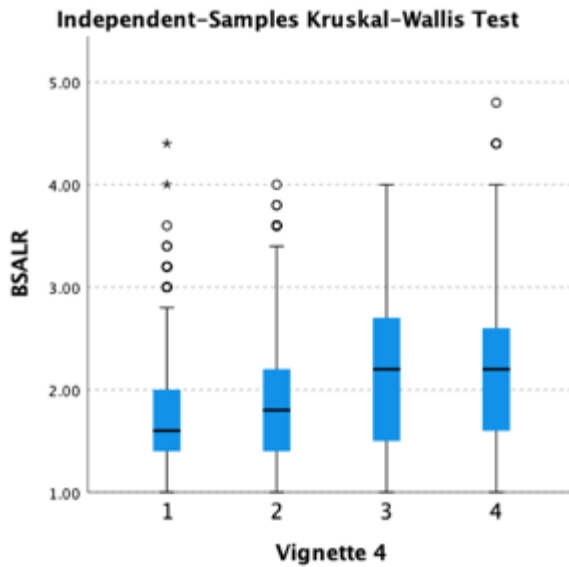
The mean rank of MFQSanctity scores were statistically significantly different between the different scores on V4, $\chi^2(3)=50.43$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V4 between D1 (mr=224.78) and D3 (mr=351.35) ($p=0.018$); D1 and D4 (mr=333.43) ($p<0.001$); and D2 (mr=263.20) and D4 ($p<0.001$); but not between any other group combination.



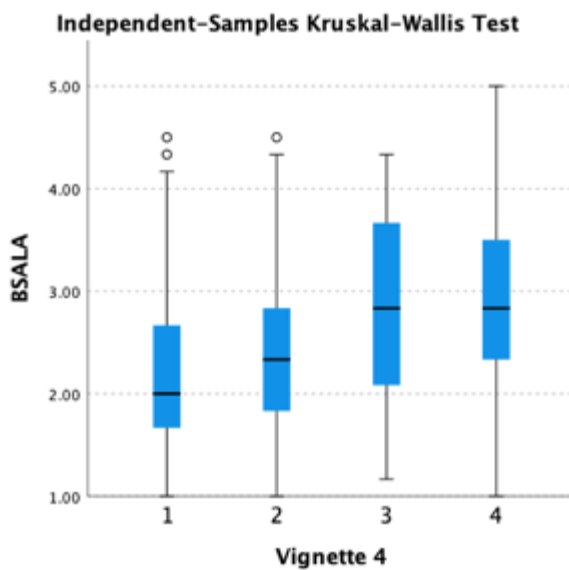
The mean rank of IHLC scores were statistically significantly different between the different scores on V4, $\chi^2(3)=15.50$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V4 between D1 (mr=239.23) and D3 (mr=330.22) ($p=0.033$) and D1 and D4 (mr=297.25) ($p=0.006$); but not between any other group combination.



The mean rank of BSALR scores were statistically significantly different between the different scores on V4, $\chi^2(3)=28.52$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V4 between D1 (mean rank=231.08) and D3 (mr=322.50) ($p=0.031$); D1 and D4 (mr=320.34) ($p<0.001$); and D2 (mr=271.83) and D4 ($p=0.026$) but not between any other group combination.



The mean rank of BSALA scores were statistically significantly different between the different scores on V4, $\chi^2(3)=65.68$ $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V4 between D1 (mr=220.04) and D3 (mr=332.20) ($p=0.004$); D1 and D4 (mr=353.81) ($p<0.001$); and D2 (mr=254.10) and D4 ($p<0.001$) but not between any other group combination.



The mean rank of BSAWS scores were statistically significantly different between the different scores on V4, $\chi^2(3)=90.82$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in

scores on V4 between D1 (mr=217.05) and D3 (mr=374.04) ($p<0.001$); D1 and D4 (mr=364.48) ($p<0.001$); D2 (mr=242.66) and D4 ($p<0.001$); and D2 and D3 ($p<0.001$); but not between any other group combination.

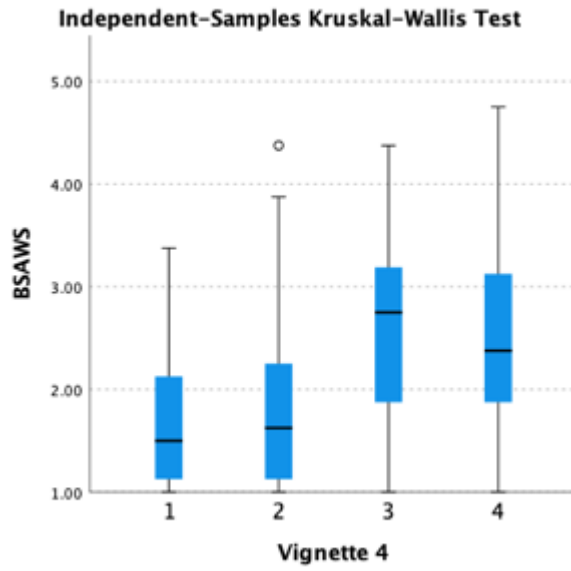
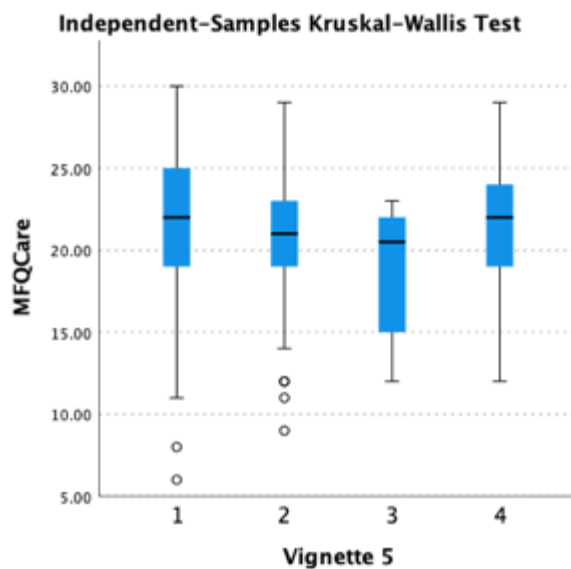


Table 20. Mean ranks for Vignette 4

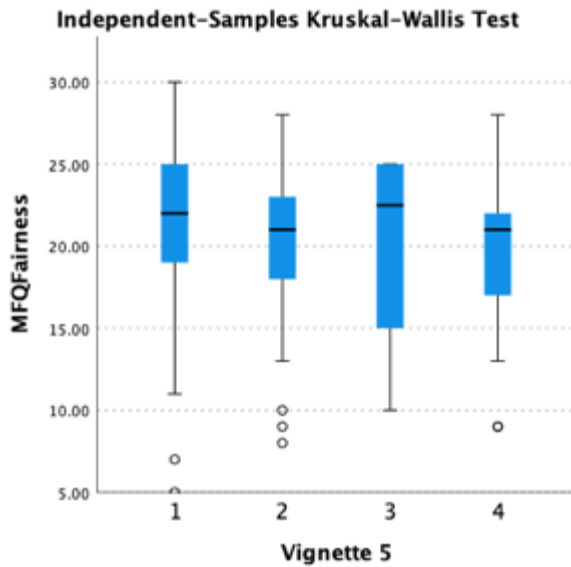
| V4 | N | Ranks | H | P | ϵ^2 |
|--------------|-------|--------|-------|---------|--------------|
| MFQCare | 1=173 | 295.83 | 12.32 | 0.006* | 0.07 |
| | 2=196 | 246.56 | | | |
| | 3=27 | 245.07 | | | |
| | 4=153 | 293.16 | | | |
| MFQFairness | 1=173 | 312.24 | 17.70 | <0.001* | 0.09 |
| | 2=196 | 257.21 | | | |
| | 3=27 | 312.44 | | | |
| | 4=153 | 249.07 | | | |
| MFQLoyalty | 1=173 | 244.43 | 26.33 | <0.001* | 0.08 |
| | 2=196 | 258.40 | | | |
| | 3=27 | 357.48 | | | |
| | 4=153 | 316.27 | | | |
| MFQAuthority | 1=173 | 224.43 | 45.60 | <0.001* | 0.09 |
| | 2=196 | 258.40 | | | |
| | 3=27 | 357.48 | | | |
| | 4=153 | 316.27 | | | |
| MFQSanctity | 1=173 | 224.78 | 50.43 | <0.001* | 0.11 |
| | 2=196 | 263.20 | | | |
| | 3=27 | 351.35 | | | |
| | 4=153 | 333.43 | | | |
| PHLC | 1=173 | 294.53 | 5.04 | 0.169 | 0.04 |
| | 2=196 | 261.50 | | | |
| | 3=27 | 297.00 | | | |
| | 4=153 | 266.33 | | | |
| IHLC | 1=173 | 239.23 | 15.50 | <0.001* | 0.07 |
| | 2=196 | 281.60 | | | |
| | 3=27 | 330.22 | | | |
| | 4=153 | 297.25 | | | |
| CHLC | 1=173 | 279.05 | 0.141 | 0.704 | 0.06 |
| | 2=196 | 281.83 | | | |
| | 3=27 | 261.93 | | | |
| | 4=153 | 263.98 | | | |
| BSALR | 1=173 | 231.08 | 28.52 | <0.001* | 0.09 |
| | 2=196 | 271.83 | | | |
| | 3=27 | 322.50 | | | |
| | 4=153 | 320.34 | | | |
| BSALA | 1=173 | 220.04 | 65.68 | <0.001* | 0.14 |
| | 2=196 | 254.10 | | | |
| | 3=27 | 332.20 | | | |
| | 4=153 | 353.81 | | | |
| BSAWS | 1=173 | 217.05 | 90.82 | <0.001* | 0.18 |
| | 2=196 | 242.66 | | | |
| | 3=27 | 374.04 | | | |
| | 4=153 | 364.48 | | | |

Vignette 5

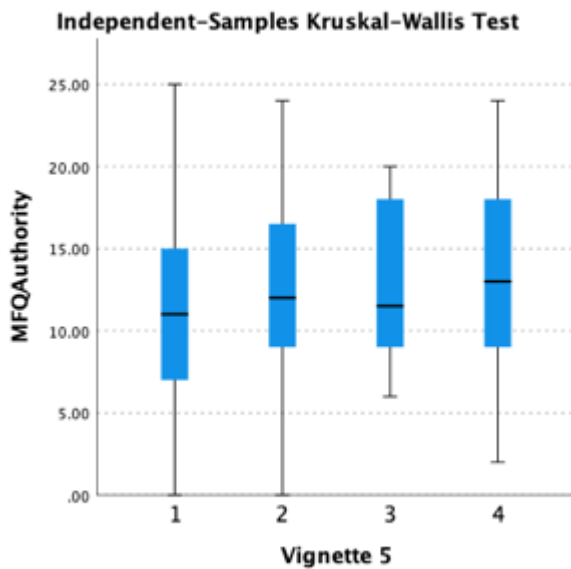
The mean rank of MFQCare scores were statistically significantly different between the different scores on V5, $\chi^2(3)=11.84$, $p=0.008$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V5 between D1 ($mr=289.12$) and D2 ($mr=242.33$) ($p=0.021$); but not between any other group combination.



The mean rank of MFQ Fairness scores were statistically significantly different between the different scores on V5, $\chi^2(3)=17.13$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V5 between D1 ($mr=294.14$) and D2 ($mr=239.29$) ($p=0.004$); and D1 and D4 ($mr=218.70$) ($p=0.031$) but not between any other group combination.

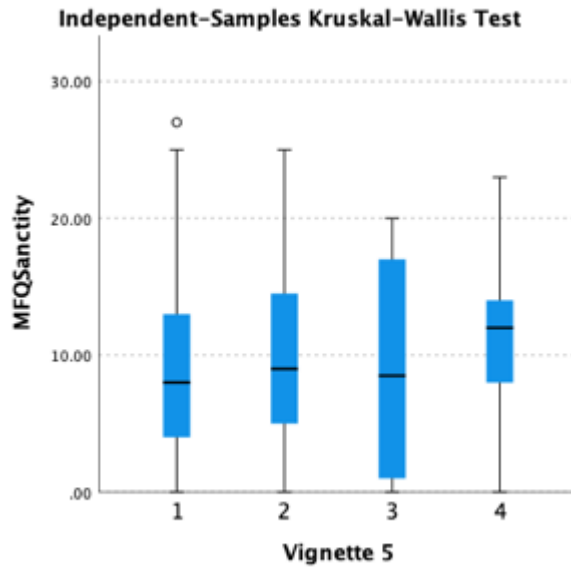


The mean rank of MFQ Authority scores were statistically significantly different between the different scores on V5, $\chi^2(3)=13.30$, $p=0.004$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V5 between D1 ($mr=257.93$) and D2 ($mr=307.89$) ($p=0.011$) but not between any other group combination.

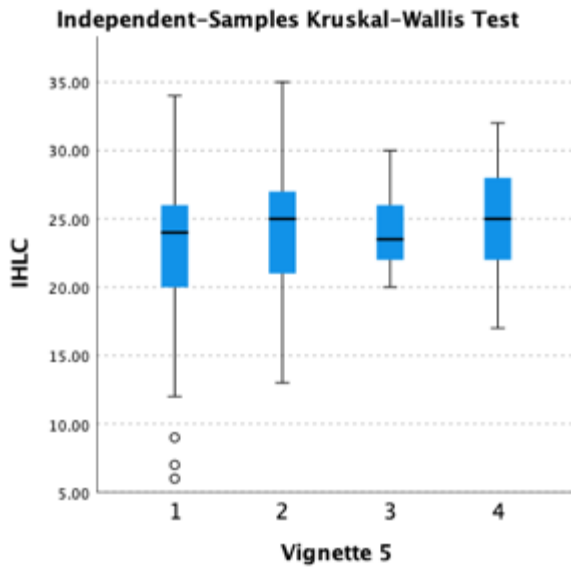


The mean rank of MFQ Sanctity scores were statistically significantly different between the different scores on V5, $\chi^2(3)=13.74$, $p=0.003$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in

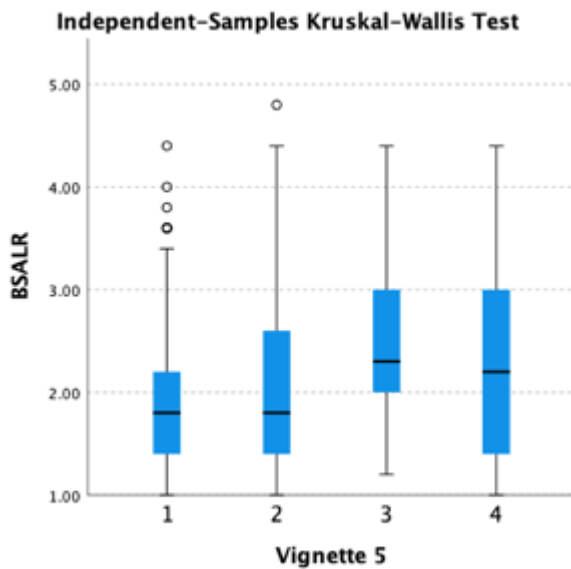
scores on V5 between D1 (mr=260.96) and D4 (mr=352.46) (p=0.004) but not between any other group combination.



The mean rank of IHLC scores were statistically significantly different between the different scores on V5, $\chi^2(3)=11.06$, $p=0.011$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V5 between D1 (mr=245.96) and D4 (mr=365.30) ($p=0.045$) but not between any other group combination.

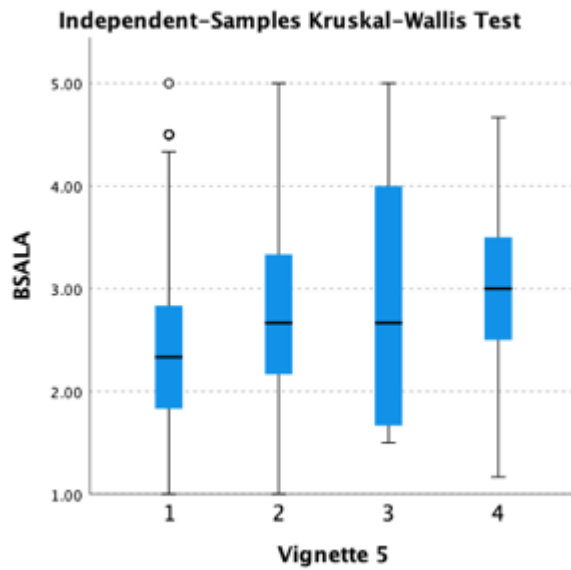


The mean rank of BSALR scores were statistically significantly different between the different scores on V5, $\chi^2(3)=13.33$, $p=0.004$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically no significant differences in scores, when using adjusted significance value.



The mean rank of BSALA scores were statistically significantly different between the different scores on V5, $\chi^2(3)=26.70$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in

scores on V5 between D1 (mr=252.00) and D2 (mr=312.11) ($p=0.001$); and D1 and D4 (mr=361.25) ($p<0.001$) but not between any other group combination.



The mean rank of BSAWS scores were statistically significantly different between the different scores on V5, $\chi^2(3)=23.05$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V5 between D1 (mr=254.65) and D2 (mr=301.89) ($p=0.020$); and D1 and D4 (mr=353.68) ($p=0.001$) but not between any other group combination.

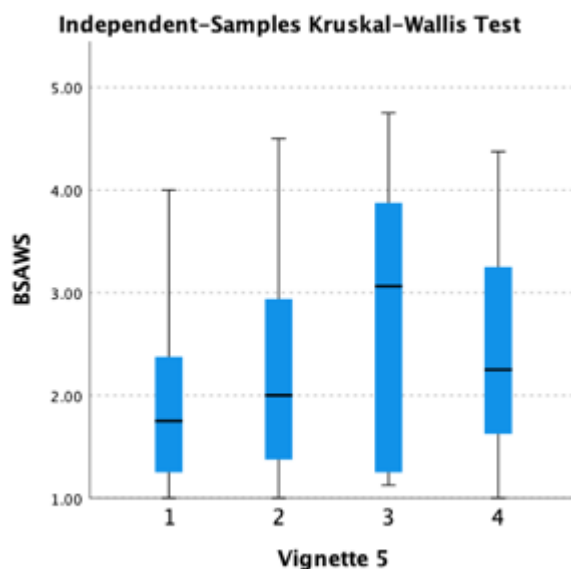
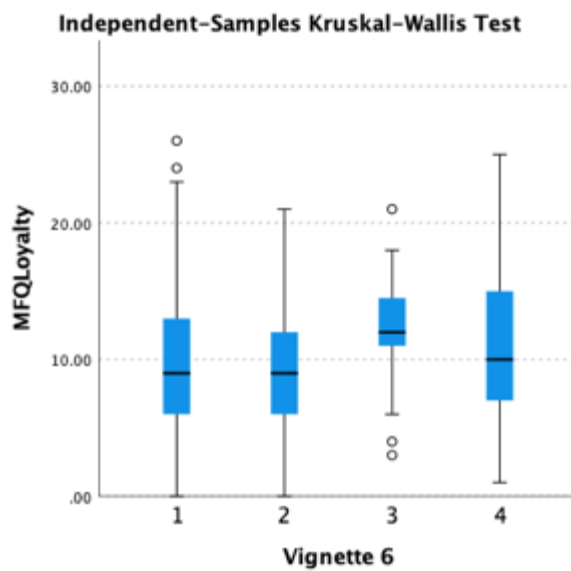


Table 21. Mean ranks for Vignette 5

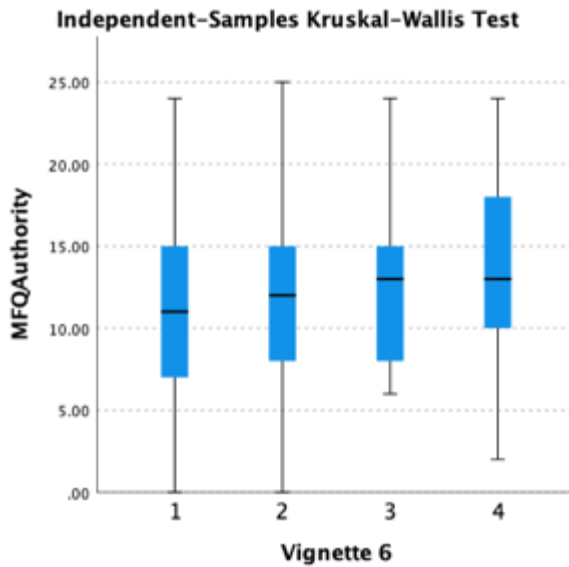
| V5 | N | M Ranks | H | P | ξ^2 |
|--------------|-------|---------|-------|---------|---------|
| MFQCare | 1=369 | 289.12 | 11.84 | 0.008* | 0.10 |
| | 2=132 | 242.33 | | | |
| | 3=10 | 184.55 | | | |
| | 4=38 | 275.18 | | | |
| MFQFairness | 1=369 | 294.14 | 17.13 | <0.001* | 0.09 |
| | 2=132 | 239.29 | | | |
| | 3=10 | 253.95 | | | |
| | 4=38 | 218.70 | | | |
| MFQLoyalty | 1=369 | 266.74 | 3.71 | 0.295 | 0.07 |
| | 2=132 | 290.41 | | | |
| | 3=10 | 330.55 | | | |
| | 4=38 | 287.09 | | | |
| MFQAuthority | 1=369 | 257.93 | 13.30 | 0.004* | 0.105 |
| | 2=132 | 307.89 | | | |
| | 3=10 | 299.25 | | | |
| | 4=38 | 320.12 | | | |
| MFQSanctity | 1=369 | 260.96 | 13.74 | 0.003* | 0.06 |
| | 2=132 | 292.91 | | | |
| | 3=10 | 262.25 | | | |
| | 4=38 | 352.46 | | | |
| PHLC | 1=369 | 272.03 | 0.87 | 0.832 | 0.02 |
| | 2=132 | 276.35 | | | |
| | 3=10 | 302.15 | | | |
| | 4=38 | 291.99 | | | |
| IHLC | 1=369 | 245.96 | 11.06 | 0.011* | 0.06 |
| | 2=132 | 320.38 | | | |
| | 3=10 | 282.69 | | | |
| | 4=38 | 365.30 | | | |
| CHLC | 1=369 | 260.46 | 1.89 | 0.595 | 0.06 |
| | 2=132 | 298.41 | | | |
| | 3=10 | 283.90 | | | |
| | 4=38 | 332.49 | | | |
| BSALR | 1=369 | 271.52 | 13.33 | 0.004* | 0.08 |
| | 2=132 | 278.25 | | | |
| | 3=10 | 338.50 | | | |
| | 4=38 | 280.79 | | | |
| BSA LA | 1=369 | 252.00 | 26.70 | <0.001* | 0.11 |
| | 2=132 | 312.11 | | | |
| | 3=10 | 306.10 | | | |
| | 4=38 | 361.25 | | | |
| BSA WS | 1=369 | 254.65 | 23.05 | <0.001* | 0.11 |
| | 2=132 | 301.89 | | | |
| | 3=10 | 372.00 | | | |
| | 4=38 | 353.68 | | | |

Vignette 6

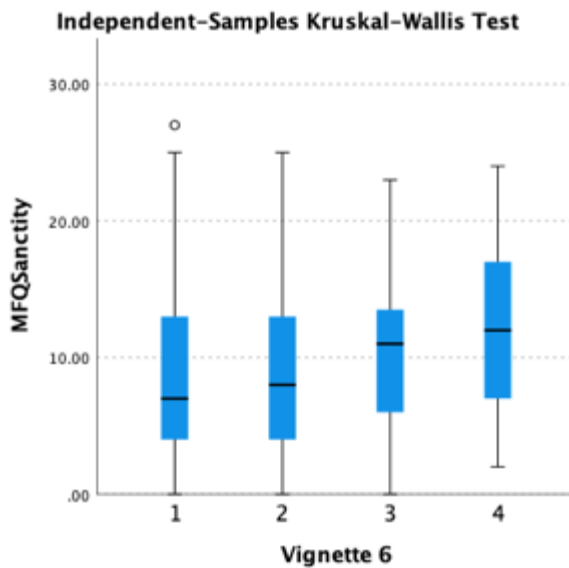
The mean rank of MFQLoyalty scores were statistically significantly different between the different scores on V6, $\chi^2(3)=7.98$, $p=0.046$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically no significant differences in scores when using adjusted significance value.



The mean rank of MFQ Authority scores were statistically significantly different between the different scores on V6, $\chi^2(3)=17.19$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V6 between D1 ($mr=253.68$) and D4 ($mr=336.74$) ($p<0.001$) but not between any other group combination.

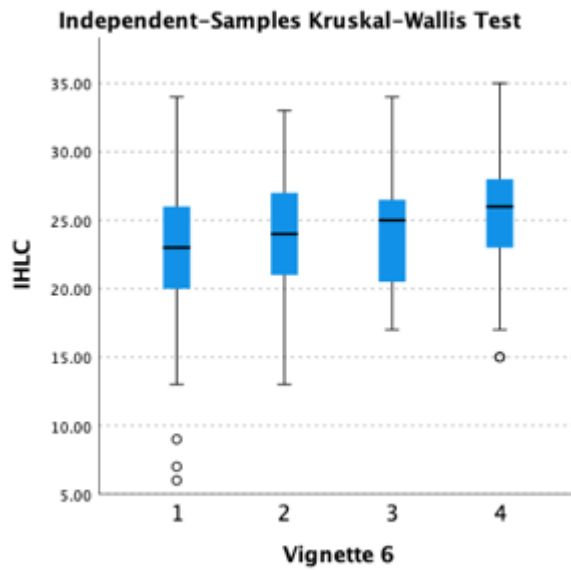


The mean rank of MFQSanctity scores were statistically significantly different between the different scores on V6, $\chi^2(3)=18.06$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V6 between D1 (mr=257.42) and D4 (mr=343.99) ($p<0.001$) and D3 (mr=314.93) and D4 ($p=0.009$) but not between any other group combination.

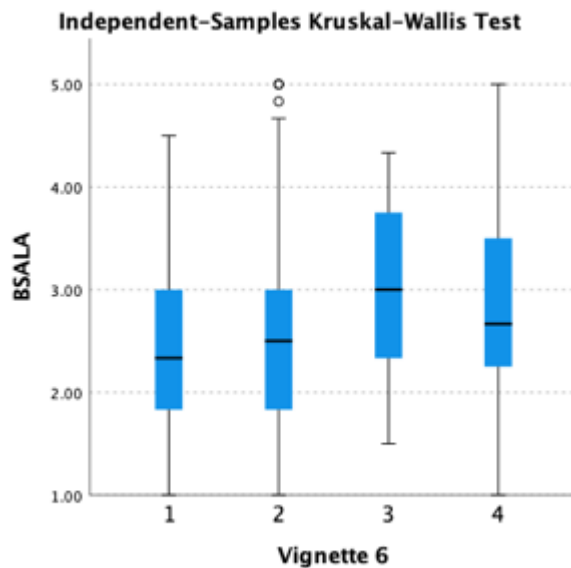


The mean rank of IHLC scores were statistically significantly different between the different scores on V6, $\chi^2(3)=21.09$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in

scores on V6 between D1 (mean rank=251.34) and D4 (mean rank=344.23) ($p < 0.001$) and D3 (mean rank=296.07) and D4 ($p = 0.048$) but not between any other group combination.



The mean rank of BSALA scores were statistically significantly different between the different scores on V6, $\chi^2(3) = 20.12$, $p < 0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V6 between D1 (mr=251.34) and D4 (mr=338.03) ($p < 0.001$) and D2 (mr=274.66) and D4 ($p = 0.028$) but not between any other group combination.



The mean rank of BSAWS scores were statistically significantly different between the different scores on V6, $\chi^2(3)=29.09$, $p<0.001$. Subsequently, pairwise comparisons in post hoc analysis revealed statistically significant differences in scores on V6 between D1 ($mr=252.08$) and D4 ($mr=359.84$) ($p<0.001$) and D2 ($mr=273.34$) and D4 ($p<0.001$) but not between any other group combination.

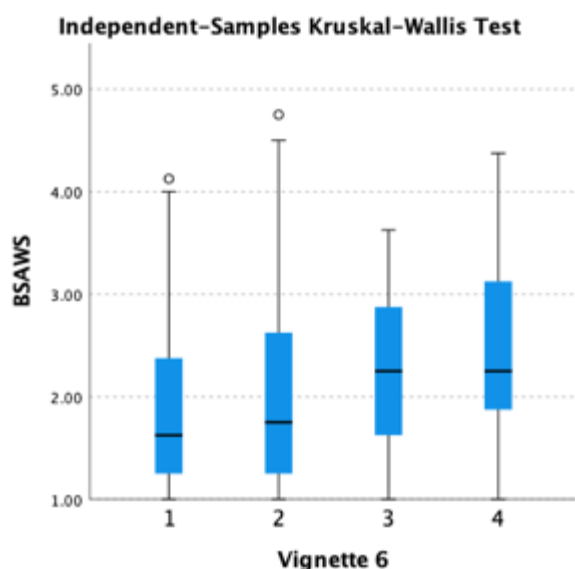


Table 22 Mean ranks for Vignette 6

| V6 | N | M Ranks | H | P | ξ^2 |
|--------------|-------|---------|-------|---------|---------|
| MFQCare | 1=293 | 281.58 | 2.28 | 0.516 | 0.05 |
| | 2=170 | 269.45 | | | |
| | 3=15 | 224.40 | | | |
| | 4=71 | 271.82 | | | |
| MFQFairness | 1=293 | 284.36 | 3.82 | 0.282 | 0.06 |
| | 2=170 | 255.49 | | | |
| | 3=15 | 290.10 | | | |
| | 4=71 | 279.90 | | | |
| MFQLoyalty | 1=293 | 265.85 | 7.98 | 0.046* | 0.05 |
| | 2=170 | 269.91 | | | |
| | 3=15 | 353.27 | | | |
| | 4=71 | 308.39 | | | |
| MFQAuthority | 1=293 | 253.68 | 17.19 | <0.001* | 0.07 |
| | 2=170 | 283.07 | | | |
| | 3=15 | 307.73 | | | |
| | 4=71 | 336.74 | | | |
| MFQSanctity | 1=293 | 257.42 | 18.06 | <0.001* | 0.07 |
| | 2=170 | 272.96 | | | |

| | | | | | |
|--------|-------|--------|-------|---------|------|
| | 3=15 | 314.93 | | | |
| | 4=71 | 343.99 | | | |
| PHLC | 1=293 | 272.01 | 0.59 | 0.90 | 0.05 |
| | 2=170 | 271.39 | | | |
| | 3=15 | 297.80 | | | |
| | 4=71 | 282.89 | | | |
| IHLC | 1=293 | 251.34 | 21.09 | <0.001* | 0.08 |
| | 2=170 | 285.00 | | | |
| | 3=15 | 296.07 | | | |
| | 4=71 | 344.23 | | | |
| CHLC | 1=293 | 281.41 | 1.31 | 0.727 | 0.05 |
| | 2=170 | 269.92 | | | |
| | 3=15 | 278.80 | | | |
| | 4=71 | 259.90 | | | |
| BSALR | 1=293 | 265.54 | 2.81 | 0.422 | 0.03 |
| | 2=170 | 281.98 | | | |
| | 3=15 | 312.10 | | | |
| | 4=71 | 289.48 | | | |
| BSA LA | 1=293 | 255.51 | 20.12 | <0.001* | 0.06 |
| | 2=170 | 274.66 | | | |
| | 3=15 | 361.10 | | | |
| | 4=71 | 338.03 | | | |
| BSA WS | 1=293 | 252.08 | 29.09 | <0.001* | 0.09 |
| | 2=170 | 273.34 | | | |
| | 3=15 | 340.00 | | | |
| | 4=71 | 359.84 | | | |