







# The perceived impact of a global pandemic on a provincial department's organisational structure



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**Orientation:** Several existing studies examine the effect organisational structures have on businesses, but there is limited research that considers the effects unforeseen crises have on organisational structures.

**Research purpose:** The study sought to determine the effects that the coronavirus disease 2019 (COVID-19) pandemic and lockdown had on the organisational structure of a provincial health department, specifically relating to performance management, employee productivity and organisational citizenship behaviour.

**Motivation for the study:** Additional pressure on health workers, who were seen as 'essential workers' during the pandemic, motivated the investigation of how organisational structure affects employees' ability to perform their duties during crises.

**Research approach/design and method:** The study employed a quantitative research approach, using surveys. A non-experimental research method and convenience sampling were employed and a sample of 207 respondents ( $n = 207$ ) was achieved.

**Main findings:** The respondents agreed that the pandemic did not cause a decline in their performance due to effective workload management. They also agreed that they still felt passionate about their work during the pandemic. They further posited that the pandemic emphasised the importance of teamwork.

**Practical/managerial implications:** The study offers insights into some factors that produced successful outcomes when handling the pandemic, which can inform organisational strategy during any similar future crises.

**Contribution/value-add:** The study adds to the limited literature linking human resources management and change or crisis management, which is critical when navigating a rapidly changing present and an increasingly uncertain workplace future.

**Keywords:** organisational structure; performance management; employee productivity; organisational citizenship behaviour; COVID-19 pandemic.

## Introduction

### Orientation

The world faced a monumental health crisis, as the coronavirus, which caused a novel severe acute respiratory syndrome (SARS-COV-2), was discovered in Wuhan, China. By the end of January 2020, over 98 global cases were reported in 18 countries outside China, resulting in the World Health Organization (WHO) declaring the coronavirus disease 2019 (COVID-19) outbreak a pandemic on 11 March 2020 (Ornell et al., 2020). On 05 March 2020, the first COVID-19 case was identified in Kwa-Zulu Natal (KZN), South Africa, in a male who tested positive upon return from Italy. By 29 December 2020, there were 9580 confirmed positive cases identified with 16% in the Eastern Cape, 6% in the Free State, 19% in KZN, 2% in Limpopo, 3% in Mpumalanga, 4% in the North-West, 20% in the Western Cape, and 3% in the Northern Cape. Meanwhile, COVID-19 cases in Gauteng also increased exponentially by 27% between March and December 2020, putting the province's health sector in a disarray (Ornell et al., 2020).

The global spread of COVID-19 led to an unprecedented disruption to businesses and the health sector lockdown restrictions which were introduced to combat the virus led to a decline in

**Note:** This article follows the South African Employment Equity Act, 1998 (chapter 1[55]), when referring to 'Coloured' people.

business profitability, closures, job losses and a high number of hospital admission and mortality rates. The COVID-19 pandemic put even more pressure on the delivery of healthcare services, subsequently impacting on service delivery and the design or amendment of organisational structure (OS) in various organisations (Ornell et al., 2020).

This study therefore sought to assess the effects of the pandemic on the OS of a provincial Health Department in South Africa. The Department of Health is an executive entity of South Africa's national government that manages overall healthcare in the country (National Department of Health RSA, 2021).

The COVID-19 pandemic and the associated lockdowns imposed major changes within all businesses regardless of their size and form. This in turn caused the structures of the organisations to adapt and change as well, which is also applicable to the health industry. Aguinis and Burgi-Tian (2021) echo this mindset by stating that the pandemic has enhanced existing performance management (PM) problems that impacted organisations before the pandemic.

Organisational structure is a concept that plays a pivotal role in any organisational growth; it is defined as a framework that ensures organisations align their systems, processes, procedures and resources towards the achievement of their set strategic goals. It promotes synergy in how workload is divided and monitored for optimal performance (Monavarian Asgari & Ashna., 2007). Brunet et al. (2021) suggest that a strategic OS and the ensuring of quality healthcare services can be fundamental in addressing the lingering effects of the COVID-19 pandemic challenges faced in the health sector through the controlling and directing of leadership competencies towards improved organisational performance.

The correlation between OS and work performance with regard to COVID-19 became evident within the health sector, such as the need to increase bed rate at hospitals, the establishment of additional COVID-19 centres, that is, FNB Stadium, COVID-19 tents and other similar sites and stations, to accommodate and manage COVID-19 patients. More health workers needed to be appointed (nurses, epidemiologists, lab assistants, community health workers, etc.), particularly after the lockdown announcement on 23 March 2020 probed by heightened pressure on the health sector (Ince & Minhas, 2020).

The health sector was forced to increase its human resources to deal with COVID-19 patient care demand. The pandemic-related lockdown prompted the wide acceptance of work strategies such as remote working, staff rotation, shifts and the transition from specialisation to more generalised work allocation, which relate to how businesses and the health sector adjusted their OS to sustain performance (Ince & Minhas, 2020; National Department of Health RSA, 2021).

## Research purpose and objectives

The aim of the study was to determine the effects of the COVID-19 pandemic on the OS of a provincial health department – particularly how the national level 4 and 5 lockdown period (dubbed as the height of the pandemic) affected the department's overall functionality.

The specific objectives of this study were:

- To determine the perceived effect of the COVID-19 pandemic on the PM of employees in a provincial Health Department.
- To determine the perceived effect of the COVID-19 pandemic on the employee productivity (EP) of workers in a provincial Health Department.
- To determine the perceived effect of the COVID-19 pandemic on the organisational citizenship behaviour (OCB) of employees in a provincial Health Department.

## Literature review

### Theoretical framework of the study: The organisational control theory

The theoretical framework used in the study is the Organisational Control Theory, which is founded on the understanding that organisations operate in an environment that is always changing which requires a certain level of control to effectively manage the organisation (Haniff et al., 2018). Several authors have expanded or explored what the organisation control theory entails and from each exploration there are two dimensions that can be formulated, namely the technical and social control. The technical control refers to the OS of an organisation, specifically encompassing its functional and structural elements, whereas social control refers to the behavioural aspects required by employees to carry out tasks that are aligned to the strategic goals of the organisation (Haniff et al., 2018).

The idea of control is achieved by managers influencing the actions of their subordinates with the idea of achieving an organisational goal – but this can become a problem if effective communication does not take place; this is because managers generally try to maximise the productivity of employees without costing the organisation more (Gossett, 2009).

In this study, this theory forms the foundation of how OSs in the provincial Health Department were affected by the COVID-19 pandemic during the level 4 and 5 lockdown period – thus revealing aspects of how the organisation had to adapt in terms of the three selected sub-constructs of OS, namely PM, EP and OCB. In relation to the two dimensions of organisational control theory as delineated above, the authors attributed the PM and EP sub-constructs to the technical control dimension and the OCB sub-construct to the social control dimension.

Particularly during the height of the pandemic, organisations in various sectors including healthcare had to either enforce

or increase rotational or shift work structures despite the additional pressure exerted on the healthcare sector due to COVID-19 (Traylor et al., 2021). Consequently, these organisations had to optimise employee efficiency by adjusting work processes – especially among their typically office-based workers (as is primarily the case at the provincial Health Department) – to get more out of them, as corroborated by the organisational control theory.

Similarly, PM had to be recalibrated and streamlined to suit the new format of work at the time, to track EP fairly and effectively, as well as to ensure better aligned human resource outcomes (Saurombe et al., 2022), all aspects of which are also supported by the organisational control theory (Snell, 1992). This theory further supports the OCB construct outlined in this paper, as it denotes the manner in which one of the ways organisations seek to maintain control over their employees is by promoting a sense of responsibility among them in terms of their work, and a feeling that the fulfilment of their work duties is for a greater noble cause (Verburg et al., 2018). Such sentiment was widely promulgated by the healthcare sector in South Africa and the world over during the recent global pandemic (Yaakobi & Weisberg, 2020).

## Organisational structure

Denisi and Murphy (2017) define OS as a unilateral approach to the delegation of authority, roles and allocation of tasks, and a process of distribution of power and procedural workflow. Most organisations resort to the establishment of an OS that allows the application of the organisational control theory to ensure alignment and contribution of work

efforts towards organisational performance (Muhammad & Ikramullah, 2020). It highlights the importance of a well thought OS and to ensure its success, organisations need to align it to their key objectives and develop an employee engagement strategy that ensures staff is aware of it. This helps to eliminate confusion regarding processes and functionality of the organisation, as the OS is designed to contribute positively towards the overall performance of the organisation (Brunet et al., 2021).

Figure 1 illustrates the theoretical lens the authors developed to explore the link between OS and the three selected constructs, namely, PM, EP and OCB.

Extant literature shows that there is a correlation between PM, OS, and its contribution towards organisational efficacy (Alonazi, 2020); however, the effect of external crises on OS regarding PM, EP and organisational citizenship behaviour, remains underexplored. This study seeks to address this gap.

The OS is important because it allows the organisation to have some degree of uniformity to achieve the set organisational goals (Shukri & Ramli, 2015). There are several types of structures that organisations can incorporate or alternatively they may use their own framework for the business; each structure type has its own advantages and disadvantages for the company. These structures are known as the functional structure, product structure, customer structure, geographic structure, divisional structure, the matrix structure, the amorphous structure, and the hybrid structure (Clawson & Pitts, 2008; Onyekwelu & Nwosu, 2021). Most OSs have processes that are difficult and time-

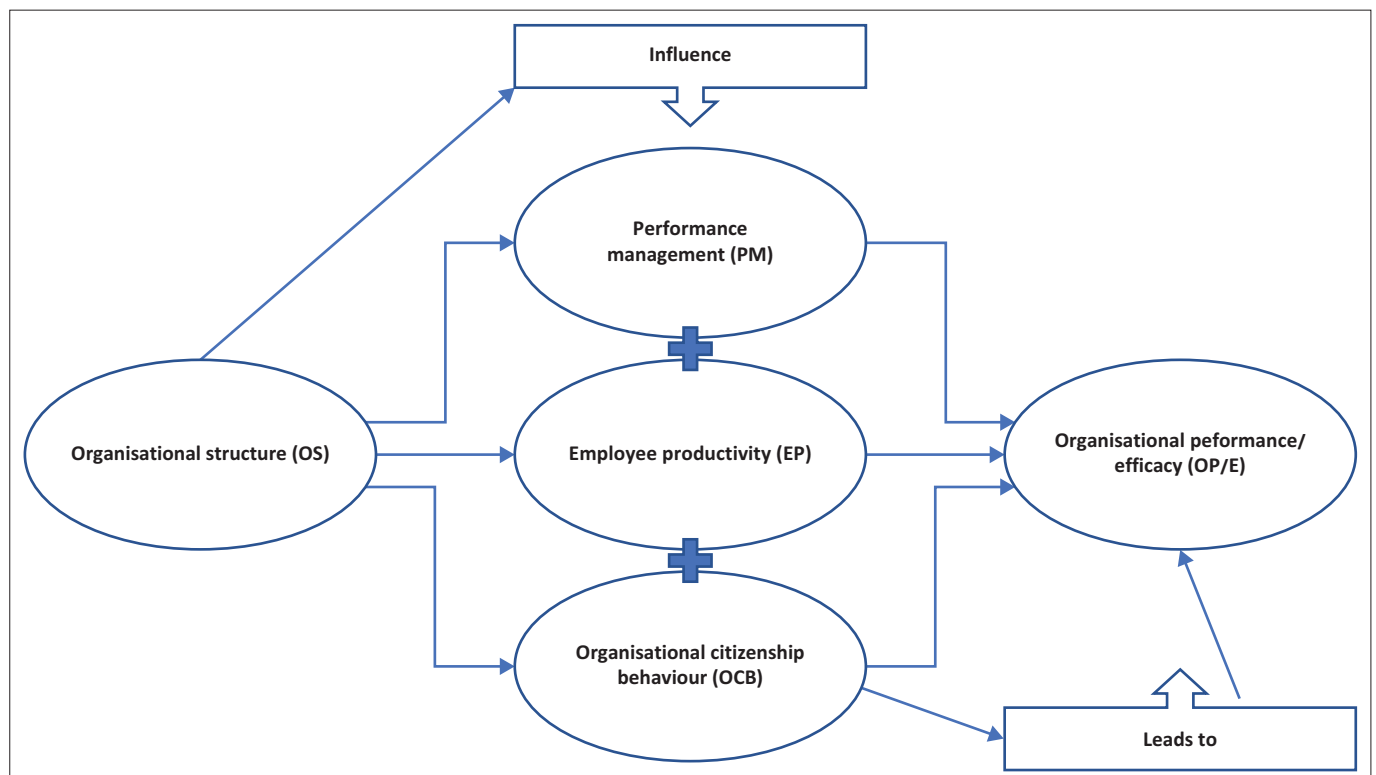


FIGURE 1: Conceptual framework of the study.

consuming to change according to the needs of the organisation – which is why it is recommended that organisations have flexible OSs that allow the organisation to make changes according to the situation at hand (Nene & Pillay, 2019).

Organisational structure simplifies models of internal organisation interactions, authority and relationships, reporting, formal communication routes, accountability and decision-making delegation (Ahmadya et al., 2017). Goals, strategy, environment, technology and organisation size impact the OS that a business would adopt which represent the entire organisation and how it functions (Ahmadya et al., 2017). Due to the high amount of consistent and ongoing executive work in the health sector, more planning and strategising were required during the COVID-19 pandemic lockdown period. For effective coordination and appropriate foresight during times of uncertainty, healthcare institutions and offices rely on standardisation of processes and work methods. These institutions should alter their regulations and policies on a frequent, informal and official basis (Ahmed, 2017).

The COVID-19 pandemic forced organisations to rethink their strategic direction, in line with an OS that drives employee performance and productivity (Saurombe et al., 2022). The COVID-19 pandemic revealed an urgent need for the redesign of OS, with the aim to rethink better and new ways to adapt various processes, procedures and systems. Remote working, flexible time, shifts, digitisation, innovative communication platforms and resources are some of the concepts that need to be considered to ensure efficiency and more organisations are utilising digital platforms to improve communication and strengthen synergy among business units (Chong, 2021).

Business continuity, organisational culture and leadership are some of the key contingencies for organisational sustainability (Shingenge & Saurombe, 2022), as they are at the forefront of any strategic planning process to ensure the integration of crisis management strategies such as organisational restructuring (Burton & Obel, 2018). Bowers et al. (2017) emphasised three types of organisational cultures, namely hierarchy, elitist and clan cultures, which inform the OS. However, Bhaduri (2019) argued that there is a need for a less flexible culture to address internal challenges, while a more flexible culture is needed to manage external forces and crises. Some scholars have highlighted the importance of organisations rethinking various aspects of their OSs in the post-pandemic era, to ensure better organisational sustainability and preparation for any future external crises which would have a direct bearing on overall organisational functioning (Foss, 2021; Saurombe et al., 2022).

## Performance management

Creating and implementing a PM system in an organisation is very crucial, because it further ensures individual, team, and organisational growth (Alipoor et al., 2017). Performance

management is a key enabler towards employee engagement, as its processes allow for an organisation's strategic goals, mission, vision and objectives to be achieved. The correlation between PM, OS and employee engagement, in how they implement and allocate resources also highlights the pivotal role managers play in leading service delivery and inclusivity to yield better results (Bussin, 2017). To ensure employee engagement, the PM system, must also be development-driven. Employees, who are involved in the strategic process of the organisation, tend to take ownership of their work and personal development. This requires managers to continuously engage with employees, monitor performance and ensure availability of resources to enable and enhance employee performance (Aguinis & Burgi-Tian, 2021).

Performance management in the South African health sector was affected in several ways, such as organisations having to temporarily freeze recruitment processes, implement retrenchments, reduce pay and alter work formats, which resulted in a substantial increase in employee stress and burnout (Aguinis & Burgi-Tian, 2021). Departments across the country had to create and adjust their policies to meet the requirements stipulated by the president and they were to ensure that the respective employees also complied with the set guidelines. The most common change was in the work arrangement of the organisation, which forced organisations to use technology as a means to ensure that the well-being of employees was looked after, while also tracking performance – which posed another challenge seeing as South Africa's technological infrastructure was not at the level it needed to be to address or implement changes to specifically deal with the pandemic (Nkate, 2020).

## Employee productivity

The employer–employee relationship is crucial in harnessing productivity and organisational performance. Funminiyi (2018) postulated that various factors contribute to a healthy relationship between the two parties, such as work engagement, specific, measurable, attainable, realistic and timely (SMART) deliverables, resources (financial, technical, human, and physical), and synergy between job requirements and employee output. An organisation that aligns its resources towards its set plans tends to experience increased EP (Funminiyi, 2018).

Managers across the country were concerned about whether employees were contributing to the achievement of the set organisational goals, due to the implications the COVID-19 pandemic had on businesses (Pass & Ridgway, 2022). In the context of the health sector, lockdowns and restrictions prevented operations from operating at full capacity (as access to certain services was prohibited) – this was to ensure that healthcare workers were readily available to deal with individuals who were displaying moderate to severe symptoms of COVID-19. As a result, patients that required assistance in services such as human immunodeficiency virus (HIV) and tuberculosis (TB) testing, contraceptives, antenatal care, among others, suffered in this regard because such services were not prioritised at the time (Pillay et al., 2021).

Evidently, EP was affected as the manner in which the healthcare system operated prior to the pandemic had to change dramatically to weather the pandemic, which meant the introduction of remote working, job rotations and changes in policy, for instance. Managers had to find a way to ensure that employees actively involved themselves in organisational activities both in the office (be it the hospital – or a designated office space) and from the comfort of their own home. Employee productivity occurs when employees are satisfied in the organisation, which shows in the commitment, loyalty and engagement of the employee. For employees to feel satisfied, managers have to ensure that the well-being of the employees is taken care of because if an employee feels the organisation does not care about them, this adversely affects the way they do their work (Soubjaki, 2021).

### Organisational citizenship behaviour

How an OS is designed, typically takes cognisance of the role of PM, EP, as well as the value of OCB, towards an effective and highly productive organisation. Organisational citizenship behaviour as an aspect of the psychological contract between employees and employers becomes visible when employees feel recognised and included in overall organisational work plans (Ngobeni et al., 2022). Employees see the need to volunteer their services and are willing to rotate and be seconded to assist where necessary if they understand the contribution of their efforts in the workplace. Employees tend to display a high level of OCB, ability and willingness in an organisation if they feel that their organisation values them and their psychological contract is respected (Ngobeni et al., 2022). This then increases job satisfaction and morale while decreasing staff turnover and absenteeism which contributes to the overall success of the organisation (Saurombe & Barkhuizen, 2022). The impact of COVID-19 on health workers during the pandemic led to low levels of OCB, which indicates the importance of OCB as a mechanism that influences employees' behaviour to ensure organisational effectiveness (Chamisa et al., 2020). The pandemic created strenuous conditions for healthcare workers to work which resulted in a decrease in display of OCB which meant that there also was less work engagement from employees, due to the strenuous repercussions imposed on healthcare workers by the pandemic (Zhang et al., 2021).

### Performance management, employee productivity and organisational citizenship behaviour in relation to organisational structure

Performance management, EP and OCB each contribute to the organisational effectiveness and competitive advantage of an organisation. In the health sector, all three constructs are reflected in the quality of work and the degree of employee satisfaction (Zhang et al., 2021); however, this is dependent on the OS that an institution chooses to adopt (Naqshbandi & Kaur, 2011). During the COVID-19 pandemic, most organisations had to re-evaluate their operations, considering the restrictions and adjustments that the country

had to undergo. When looking at PM, it is argued that employees tend to perform exceptionally in organisations with a less complex OS (Alipoor et al., 2017).

When looking at EP, the OS determines how efficient workers would be which in turn determines how effective the organisation would be (Funminiyi, 2018). Organisational citizenship behaviour is influenced by the formality of the OS – the less formal the OS, the more employees are willing to take risks in innovation and do more than what is required of them (Naqshbandi & Kaur, 2011). This study examined how the OS of a provincial Health Department was affected by the COVID-19 pandemic during the level 4 and 5 lockdowns, by examining the three chosen sub-constructs of OS.

## Research design

### Research approach

This study employed a quantitative research approach. The reason behind the selection of this research approach was because the provincial Health Department in the selected South African province is relatively large; therefore, using a large sample size (which is what quantitative research is widely used for) resulted in a fair collection of the data and interpretation of the results from an objective, systematic and mathematical perspective (Mohajan, 2020). The main research question in this study was: what are the effects of the COVID-19 pandemic on the OS of a South African provincial Health Department?

## Research method

### Research participants and sampling

The population of the study was found within the Gauteng Department of Health. All employees working in the department were potential respondents of the survey across the different levels of employment (lower-level employees to senior management employees) of which random sampling was used to select the sample. The need for sampling is beneficial as it assists when firstly, it would be unfeasible to collect data from the entire population; secondly, when budget constraints prevent researchers from collecting data from the whole population; and lastly, sampling aids when the time constraints do not permit the researchers to collect data from the total population (Saunders et al., 2019). In this study, probability sampling was used. The following stages were followed as suggested by Saunders et al. (2019).

#### Stage 1: Identify a suitable sampling frame based on research question

The sampling frame in this study was extrapolated from a provincial Health Department.

#### Stage 2: Decide on suitable sample size

In this study, the sample size consulted at the Gauteng Department of Health was  $N = 207$ . The primary determining factor of the sample size was time and budget constraints, because the research was mainly conducted to satisfy the

requirements of a postgraduate qualification (Lakens, 2022). Furthermore, according to Minsel (2022), a sample size of 200–300 respondents is considered sufficient to ensure an acceptable margin of error. The inclusion criteria in the study were employees employed at the Gauteng Department of Health on a full-time basis between the ages of 18 and 64 years of age. The reason behind the inclusion criteria was that full-time employees were likely to bear most of the brunt of the additional pressure imposed during the lockdown. The inclusion criteria further sought to ensure an all-inclusive generational understanding of what was being investigated.

### **Stage 3: Select the most appropriate sampling technique and select the sample**

Random probability sampling was used, and specifically, stratified random sampling. This was done by first separating the respondents based on their positions, then assigning respondents a unique number before being selected at random.

### **Stage 4: Check that the target sample is representative of the population**

This was done by checking the overall employee demographic data available at the provincial Department of Health's database, to ensure that the randomly selected sample would best represent the general population.

## **Measuring instruments**

In designing the questionnaire that was used to collect data, the chosen approach was adaptation – whereby existing measuring instruments adapted to suit the COVID-19 pandemic context were incorporated into designing the questionnaire as each of the study constructs had existing measuring instruments that measured their influence on the OS; thus, this article collectively addressed all the constructs as part of a combined framework. As a result, the authors ensured that the results produced from the data collected adhered to the principles of data collection, that is, the information must be credible, valid and reliable (which was ensured through the integration of existing instruments that measured the constructs mentioned through the development of a new and integrated instrument by the authors, to solve the problem in question).

The PM section of the questionnaire was derived from concepts and research gathered by Carini et al. (2020) and identified certain dimensions crucial to the performance of healthcare organisations. These dimensions are patient-centredness, effectiveness, efficiency and safety.

The EP section of the questionnaire was derived from a 3-factor, 16 item questionnaire designed by Shrotryia and Dhanda (2020) that spoke to three dimensions (identified by practitioners and scholars) of employee engagement including alignment, effectiveness and action-orientation in the work and organisational context (Shrotryia & Dhanda, 2020).

The OCB section of the questionnaire was derived from the Podsakoff MacKenzie, Paine & Bachrach (2000) Organisational Behaviour Scale which looked at the different types of organisational behaviour in an individual context (OCB-I) where altruism and courtesy as a dimension were measured and conscientiousness, civic virtue and sportsmanship (OCB-O) were measured in the context of the organisation (Maura & Igor, 2013).

## **Ethical considerations**

Several ethical factors were considered in this study, including how the authors ensured that the constructs were measured in a reliable, credible and valid manner. The study was conducted in accordance with the University of Johannesburg's ethical requirements, together with an ethical clearance number (IPPM-2022-659[H]) that was issued by the Ethical Clearance Committee of the University – which was communicated to potential respondents. Primary data was gathered, analysed and reported on condition of anonymity, confidentiality, honesty and integrity to protect respondents against harm. The voluntary and confidential nature of the study was explained to respondents to ensure their informed consent and data provision accuracy. The rights of the general community and scientific community were respected. Respondents were made aware that if they wished to discontinue participation in the study, they were free to withdraw at any point in time without fear of being punished.

## **Data collection**

The respondents were contacted through one of the authors who, at the time of data collection, worked for the organisation where this study was conducted. This individual served as an initial liaison between the other authors and the organisation; however, they were excluded from the sampling, data collection and data recording stages to prevent any potential bias or dynamics of power they may have exerted during these processes. Prior to collecting data, a letter of permission was sent out to the organisation; this letter served to obtain confirmation from the organisation that accepted the request for the group members to collect information relevant to the study and contained information such as the intended purpose of the study, the ethical considerations and the data collection process. The surveys were distributed via Google Forms and the information obtained was downloaded and collated in a Microsoft Excel spreadsheet in preparation for statistical analysis. Three hundred surveys were initially distributed; however, the response rate fell short and thus, the authors continued to send out survey invitations until the minimum targeted sample size of  $N = 200$  was achieved. The authors were ultimately able to secure a sample of 207 respondents. This process took about 2 months in total.

## **Statistical analysis**

In this study, surveys were used to collect data from the respondents, which allowed the authors to gather data from

a wide range of individuals. The survey responses were analysed using the Statistical Package for Social Sciences (SPSS) – a tool that is used to analyse quantitatively generated data using mechanisms that allowed the data to be interpreted and presented in a more systematic and mathematical way. It was especially pertinent because the study had a large sample size that allowed generalisations to take place (Arkkelin, 2014). The targeted sample size was 200 ( $N = 200$ ), of which a sample size of  $N = 207$  was ultimately achieved, which was a considerable size and fit the data analysis tool SPSS's criteria for more accurate interpretation and analysis.

The data collected in this study was summarised using descriptive statistics. The descriptive statistics were used to portray the quantitative data obtained, in an understandable manner. Descriptive statistical analysis makes it easier to condense data into a digestible summary for analysing specific groups (Yellapu, 2018), and was particularly fitting in this study due to its relative novelty, as more intricate relationship testing would not have been so appropriate. Descriptive statistics gave a good overview on how PM, EP and OCB affected the OS of a provincial Department in the healthcare sector.

## Results

### Biographical information

Section A of the questionnaire entailed questions on the demographic information of the sample, including gender, age range, race, field of work and years of working experience in the provincial Health Department. The information obtained is presented by means of pie charts and a brief subsequent discussion of each.

### Gender

Figure 2 shows information relating to the gender of the respondents, whereby the largest portion of the sample identified as female with 60.4% ( $n = 125$ ), followed by 34.3% ( $n = 71$ ) identified as male. Lastly, 1.9% ( $n = 4$ ) and 3.4% ( $n = 7$ ) identified as non-binary and preferred not to say, respectively.

### Age group

Figure 3 shows information relating to the age group of the employees of the Gauteng Department of Health, where the majority age group is respondents in the 30–35 range with 23.7% ( $n = 49$ ), followed by the 36–41 age group with 22.2% ( $n = 46$ ), then the 42–47 age group with 19.8% ( $n = 41$ ). Next is the 48–53 age group with 14.0% ( $n = 29$ ), followed by the 24–29 age group with 12.6% ( $n = 26$ ), then the 54–59 age group with 5.3% ( $n = 11$ ). The two least represented age groups in the sample are 18–23 and 60–64, at 1% ( $n = 2$ ) and 1.4% ( $n = 3$ ), respectively.

### Race

Figure 4 illustrates the different races of the respondents, where most of the respondents (84.1% [ $n = 174$ ]) were black people, followed by the coloured people and white race people

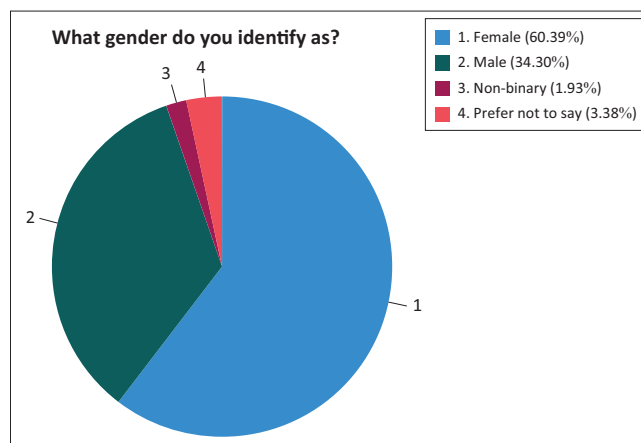


FIGURE 2: Gender.

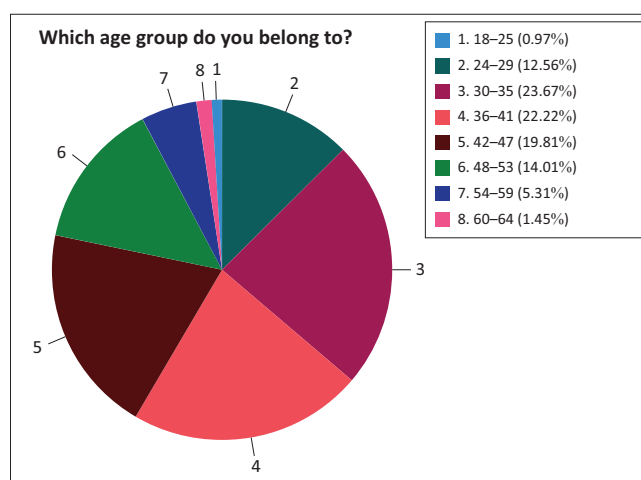


FIGURE 3: Age group.

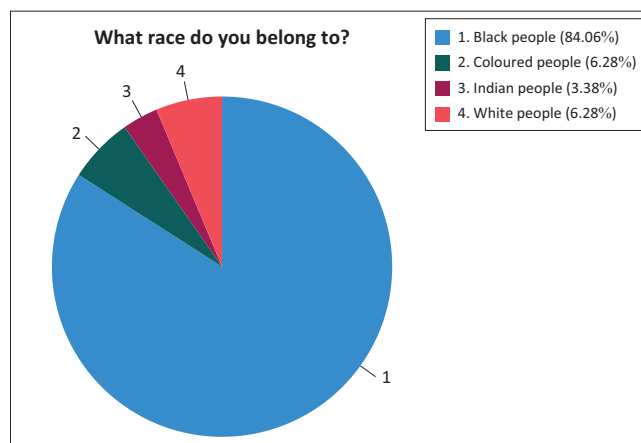


FIGURE 4: Race.

each with a similar representation of 6.3% ( $n = 13$ ). Lastly, the Indian race had the least representation of 3.4% ( $n = 7$ ).

### Field of work

Figure 5 shows information relating to the field of work that respondents work in within the Department. From the figure we can see that, majority of the respondents (46.4% [ $n = 96$ ]) worked in Support, followed by the Services category at 18.8% ( $n = 39$ ). The Clinical category represented 12.1%

( $n = 25$ ) of the sample, the Nursing category 9.7% ( $n = 20$ ) and the Management category 9.2% ( $n = 19$ ). The least represented category was pharmaceuticals at 3.9% ( $n = 8$ ).

### Years of experience

Figure 6 represents the years of experience that respondents had in the Department. The longest that most respondents (31.4% [ $n = 65$ ]) had spent working for the Department was between 6 and 10 years. The second longest years of experience (28.0% [ $n = 58$ ]) was respondents who had between 11 and 15 years with, followed by respondents (24.2% [ $n = 50$ ]) who had been working in the Department between 0 and 5 years and lastly, respondents who had been working in the Department longer than 16 years (16.4% [ $n = 34$ ]) was the least represented in the sample.

### Descriptive statistics

In this study, the nominal variables were taken from the biographical data (gender of the respondents, age of the respondents and highest qualification) (Conner & Johnson, 2017). In terms of ordinal variables, the Likert scale used was structured in this manner: ‘strongly disagree’, ‘disagree’, ‘neither disagree nor agree’, ‘agree’, and ‘strongly agree’ (Kaur et al., 2018).

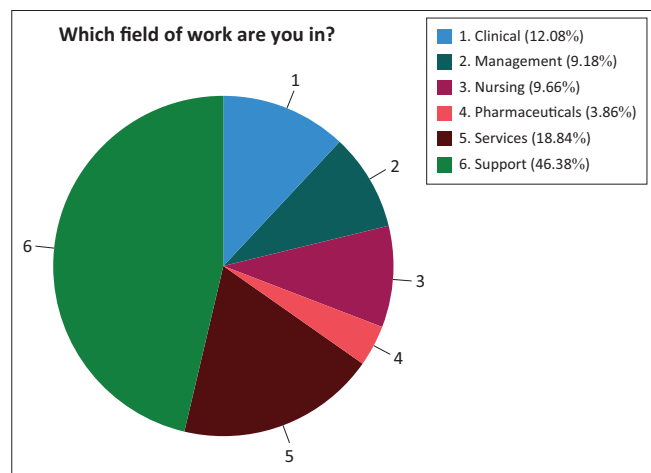


FIGURE 5: Field of work.

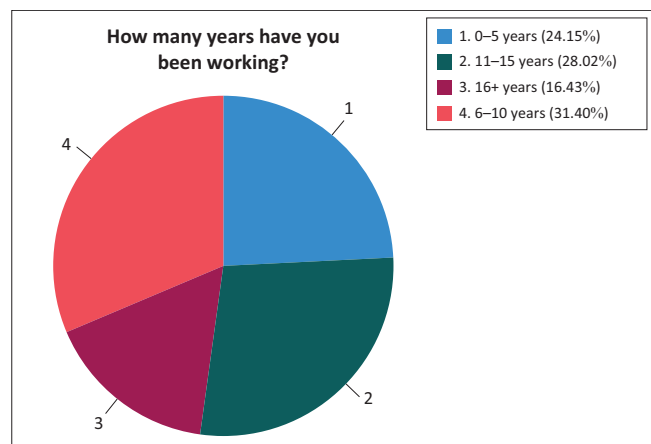


FIGURE 6: Years of experience.

The ratio variable in this study was the number of years that the respondents had been working in the provincial Health Department. This was depicted by the ‘0-5 years’ item in the measuring instrument (Kaliyadan & Kulkarni, 2019). The study was further analysed using the mean and the standard deviation (an acceptable value of two was used to account for possible outliers). Table 1 to Table 4 illustrate the various pertinent study constructs which were investigated.

For PM in section B of the questionnaire, the highest mean score was shared by 2 items at 4.21 (items PM1 and PM7) and the lowest mean score was 2.71 (item PM6). Looking at the highest mean score, the respondents agreed that during

TABLE 1: Descriptive statistics for performance management ( $N = 207$ ).

Item	Minimum	Maximum	Mean	SD
PM1	1	5	4.21	0.842
PM2	1	5	3.43	1.125
PM3	1	5	3.17	1.198
PM4	1	5	3.29	1.184
PM5	1	5	3.29	1.113
PM6	1	5	2.71	1.255
PM7	1	5	4.21	0.881
PM8	1	5	3.77	1.026
PM9	1	5	3.23	1.289

PM, Performance management; SD, standard deviation.

TABLE 2: Descriptive statistics for employee productivity ( $N = 207$ ).

Item	Minimum	Maximum	Mean	SD
EP1	1	5	4.39	0.884
EP2	1	5	4.26	0.864
EP3	1	5	3.65	1.201
EP4	1	5	3.85	0.971
EP5	1	5	3.49	1.206
EP6	1	5	4.17	0.829
EP7	1	5	3.94	0.966
EP8	1	5	3.76	1.000
EP9	1	5	3.00	1.189
EP10	1	5	3.33	1.047
EP11	1	5	3.37	1.084
EP12	1	5	4.00	0.940
EP13	1	5	3.49	1.083

EP, Employee productivity; SD, standard deviation.

TABLE 3: Descriptive statistics for organisational citizenship behaviour ( $N = 207$ ).

Item	Minimum	Maximum	Mean	SD
OCB1	1	5	4.36	0.835
OCB2	1	5	3.91	0.896
OCB3	1	5	4.31	0.731
OCB4	1	5	3.45	1.156
OCB5	1	5	3.09	1.337
OCB6	1	5	4.25	0.832
OCB7	1	5	4.02	0.892
OCB8	1	5	3.73	1.072
OCB9	1	5	4.11	0.858
OCB10	1	5	3.86	1.007
OCB11	1	5	3.72	1.008
OCB12	1	5	3.68	1.059
OCB13	1	5	3.75	1.085
OCB14	1	5	3.86	1.105

OCB, Organisational citizenship behaviour; SD, standard deviation.



**TABLE 4:** Descriptive statistics for organisational structure ( $N = 207$ ).

Item	Minimum	Maximum	Mean	SD
OS1	1	5	4.21	0.814
OS2	1	5	4.21	0.813
OS3	1	5	3.74	0.959
OS4	1	5	3.58	0.981

OS, organisational structure; SD, standard deviation.

Lockdown levels 4 and 5 managing their workload led to organisational effectiveness (item PM1), whereas the lowest mean score suggested that the respondents disagreed that their performance declined due to COVID-19 restrictions.

In terms of the standard deviation of PM, the highest value was 1.29 (item PM9) and the lowest value was 0.842 (item PM1), suggesting that Item PM9 ( $SD = 1.29$ ) did not have many outliers although it was a bit further from the mean. With Item PM1 ( $SD = 0.842$ ) most of the scores were closer to the mean – suggesting that the likelihood of ‘strong disagreement’ (Likert Scale = number 1) was slim because the average was 4.21.

The EP abbreviation was ascribed to EP in section B of the questionnaire, with the highest mean score being 4.39 (Item EP1) and the lowest mean score being 3.00 (item EP9). According to the mentioned information, respondents neither agreed nor disagreed that their working relationship with their manager or supervisor improved or declined during the COVID-19 pandemic (item EP9). On the other hand, most respondents agreed that it is crucial for the leadership and management of an organisation to make their employees feel physically safe, during crises like the COVID-19 pandemic.

In terms of the standard deviation, Item EP6 had the lowest value of 0.829 and Item EP5 had the highest value of 1.21. This is explained a bit further by Item EP6 whereby most respondents agreed that they felt passionate about the work they do in their organisation (mean = 4.17) with the lowest standard deviation value implying there were hardly any significant outliers from the average.

The abbreviation OCB denoted Organisational Citizenship Behaviour in section B of the questionnaire. Item OCB1 had the highest mean with 4.36 and Item OCB5 had the lowest mean score of 3.09. This implies that respondents agreed that teamwork and collaboration are critical to an organisation during a crisis like the COVID-19 pandemic (item OCB1) whereas most respondents neither agreed nor disagreed on whether they would consider leaving their organisation for another with better vision, mission, pay benefits, among others (Item OCB5).

In terms of the standard deviation, Item OCB1 had the lowest value of 0.835 whereas Item OCB5 had the highest standard deviation of 1.34. Each item had very few outliers considering the acceptable normal standard deviation value of under 2.

For OS in section B of the questionnaire, the highest mean score was 4.21 (Items OS1 and OS2) and the lowest mean

score was 3.58 (Item OS4). From the mentioned information we see that the respondents mostly agreed that the organisational success is determined by credible decisions from managers and an effective OS (Items OS1 and OS2). On the other hand, most respondents neither agreed nor disagreed as to whether the OS adopted during the COVID-19 pandemic was adjusted appropriately.

When looking at the standard deviation of this construct, the highest value was 0.981 (Item OS4) and the lowest value was 0.813 (Item OS2). This suggested that Item OS4 ( $SD = 0.981$ ) did not have many outliers, although it was further from the mean, whereas for Item OS4 ( $SD = 0.813$ ) most of the scores were close to the mean – implying that the likelihood of ‘strong disagreement’ (Likert Scale = 1) was slim due to the average being 4.21.

## Reliability

There are different methods used to measure the reliability of the scales used in a study. The methods frequently used are the test-retest reliability which implies that when we utilise the measuring instrument on the same sample group but different time, the results will be consistent, even when the tool is applied again to the same sample group there will be correlation, which indicates reliability (Kaplan & Saccuzzo, 2017; Korb, 2017).

Kaplan and Saccuzzo (2017) further emphasise that the duration to test and re-test must not be too long for the quality of the scale to change; for instance, if a researcher is testing the effectiveness of an organisational PM system, and needs to test the reliability of the measuring instrument through the test and re-test method, the researcher cannot re-test a year after the first test, as the pattern in relation to the effectiveness of the organisation performance system may have changed during that period.

In this study, measuring reliability was performed using Cronbach’s alpha where the numbers were expected to be above 0.6 to be considered reliable, valid and acceptable. All the items included showed reliability as depicted in Table 5.

## Correlation

Correlation reveals the strength and direction of a relationship between two constructs. Correlations are not used to make predictions and do not prove causation (Ott & Longnecker, 2001).

Table 6 illustrates the correlation matrix between the constructs investigated in this study.

From Table 6, OS and OCB are firstly seen to have a small, statistically significant relationship ( $r = 0.149$ ;  $p < 0.033$ ). Secondly, OS and PM are seen to have a small statistically significant relationship ( $r = 0.267$ ;  $p < 0.001$ ) and lastly, OS and EP are illustrated as having a moderate, statistically significant relationship ( $r = 0.323$ ;  $p < 0.001$ ) – implying that

**TABLE 5:** Cronbach's alpha.

Variable	Cronbach's alpha
PM	0.663
EP	0.714
OCB	0.738†
OS	0.500

PM, performance management; EP, employee productivity; OCB, organisational citizenship behaviour; OS, organisational structure.

†, excluding one response.

**TABLE 6:** Correlations matrix between constructs.

Correlations	PM	OS	EP	OCB
<b>PM</b>				
Pearson correlation	1	0.267**	0.308**	0.217**
<b>OS</b>				
Pearson correlation	0.267**	1	0.323**	0.149*
<b>EP</b>				
Pearson correlation	0.308**	0.323**	1	0.170*
<b>OCB</b>				
Pearson correlation	0.217**	0.149*	0.170*	1

PM, performance management; EP, employee productivity; OCB, organisational citizenship behaviour; OS, organisational structure.

\*, Correlation is significant at the 0.05 level (2-tailed); \*\*, Correlation is significant at the 0.01 level (2-tailed).

an increase in OS effectiveness, or the degree to which OS efficiency is perceived (that is, an increase in communication through reporting lines) will increase EP.

## Discussion

### Outline of the results

The purpose of this study was to examine the effect of the COVID-19 pandemic on OS of a provincial Health Department in South Africa. There are several factors and sub-factors that were identified from during this study, as subsequently delineated.

### Organisational structure and performance management

The first objective for the study was to determine the effect of the COVID-19 pandemic on the PM of employees in the provincial Health Department. Ahmed (2017) explains and acknowledges that PM in the health sector has become a fundamental concept in ensuring universal healthcare for all, as it is a tool designed to manage resources and optimise organisational efficacy.

From the responses collected, it was evident that the structure of the organisation is important for the success of any business. Consequently, the way in which management makes their decisions should be sufficiently effective to manage crises like the COVID-19 pandemic. The way an organisation's hierarchy is set out will determine the type and dynamics of their PM system from how the organisation evaluates its overall performance to the processes involved in evaluating individual performance of employees in the organisation (Bussin, 2017). Focussing on the aspect of PM, most disagreed that their performance declined during the COVID-19 lockdown and restrictions; in fact, it is key to note that most of the respondents felt like they were more productive during

the height of the pandemic. Essentially, the pandemic highlighted recognition as a means through which PM would impact the efficiency of the OS in the Department which is supported by studies conducted by other scholars such as Luthans and Stajkovic (2021) and Saurombe et al. (2022). Through constant feedback and communication, the adjusted OS led to a more modified application of the existing PM system in the organisation in this study.

It was mostly agreed that an effective OS has a positive impact on performance, which spilled over into the question of whether the organisation's existing PM system was perceived to be effective during the COVID-19 pandemic – a question to which most respondents neither agreed nor disagreed. A possible reason for the above is that employees may not have been fully aware of or may have misunderstood how the organisation measures and maintains its performance. Additionally, there may not have been sufficient communication provided regarding any changes that would occur due to the pandemic, as seen in Madlabana and Petersen (2020).

The respondents also agreed that their supervisors recognised their efforts and contributions to the organisation during the pandemic which is important, as recognition positively influences employee motivation and employee motivation is likewise an essential predictor of performance (Ngobeni et al., 2022). According to Luthans and Stajkovic (2021), recognition is defined as the acknowledgement, approval and genuine appreciation of someone's actions, behaviours or results. It can be done in a formal setting or an informal setting, but it is founded from positive reinforcement in the reinforcement theory. There are three types of positive reinforcers that have shown to increase the frequency of actions that are most often used to improve performance – money, feedback and recognition (Masri & Suliman, 2019).

While most of the respondents' performance was not impacted negatively, their drive to work diligently and perform well came from the recognition they received from their supervisors, together with their existing PM system that seemingly remained effective during the pandemic. Performance measurement, the OS and policies within the organisation are components that fall under the organisational control theory – which is the way organisations influence their subordinates to achieve organisational goals and objectives (Burkov et al., 2015). Through rewards and recognising the efforts of employees during the pandemic, the organisation was able to execute control more effectively and efficiently which resulted in the Department being able to adapt to changes that occurred in the external environment (Chetty, 2016) that is, the COVID-19 pandemic.

### Organisational structure and employee productivity

The second objective of the study was to determine the effect of the COVID-19 pandemic on the EP of workers in a provincial Health Department, and the results showed that

most respondents agreed that it is important for the leadership and management of an organisation to make their employees feel physically safe, during crises like the COVID-19 pandemic. This corroborates the study conducted by Maphumulo and Bhengu (2019) which revealed that the lack of a conducive working environment, the lack of access to resources, as well as problems regarding management and leadership adversely affect the productivity of employees in South African healthcare.

Most respondents agreed that the OS that the Department employed during the COVID-19 pandemic was effective. It can also be concluded from the responses that most were able to communicate effectively with their colleagues during the COVID-19 levels 4–5 lockdown and they managed to stay motivated to work throughout this period. A study done by Atoko (2021) advocated that remote working positively impacts EP; however, in this study, healthcare workers who were described as essential workers at the time, were required to be physically present in the workplace to effectively do their jobs, and they were able to remain productive due to in-person communication which was considered more effective. Effective communication in an organisation can result in understanding and satisfying relationships, depending on how an organisation structures their communication channels (Renani et al., 2017). It is also worth noting that communication between managers and their subordinates in this study improved during the COVID-19 lockdown, and management was able to keep the workforce engaged and feeling supported during this period.

The above also links to the OS, as during the pandemic there had to be adjustments made to deal with the pandemic effectively and this study's respondents were confident in their OS's ability to keep them motivated in their work and also improve their communication. Funminiyi (2018) argues that a modern OS that encourages employee involvement, participation and collaboration through a flat and more open structure, gives employees autonomy in their work and fosters communication across all levels within the organisation. Recognition of employees' efforts (through PM) will result in them being more productive and consequently positively contributing to the overall success of their organisation.

The choice of the OS is dependent on several factors such as the size of the institution, employee competency, the leadership style, organisational goals and objectives, technological changes and external influence (Browning, 1991). Considering the provincial Department in this study is a branch of a national Department, changes in the OS would not have been possible but the effective communication across reporting channels may have influenced employees to be more productive due to them understanding what was expected of them, and how the 'new normal' was communicated to them which made managing and working through the pandemic much easier to do.

The COVID-19 pandemic inadvertently caused the organisation to incorporate several changes that were issued to address its

repercussions, and as such, measures like remote working and reduced shifts decreased the productivity of most workers (Nimmi & John, 2020). However, in this instance the Department was able to regulate the work of their employees so that they remained productive and managed to achieve organisational goals. This was effective because of the constant communication that occurred between managers and subordinates, and among colleagues, as substantiated by Bawa (2017). Communication was also seen as a measure that maintained the OS within the organisation in this study, similar to the studies conducted by Renani et al. (2017) and Rwafa-Ponela et al. (2021), which highlighted that through effective communication organisational goals can be achieved, especially during a crisis.

### **Organisational structure and organisational citizenship behaviour**

The third objective of this study was to determine the effect of the COVID-19 pandemic on the OCB of employees in the provincial Health Department. Results reported that respondents agreed that teamwork and collaboration were critical to an organisation during a crisis like the COVID-19 pandemic. Moreover, Dasgupta (2021) asserted that OCB can arise as a personal choice; however, during the pandemic, healthcare workers like nurses exhibited OCB because they needed to perform duties that are not within their job scope or description, as they voluntarily performed other duties while the healthcare system was overburdened (Buhaid & Buheji, 2022).

Podsakoff's questionnaire designed to evaluate the degree an individual would experience OCB investigates two categories. The first is OCB for the organisation and the second is OCB for the individual, whereby the OCB-Individual concerns dimensions of altruism and courtesy and OCB-Organisation concerns dimensions such as sportsmanship, conscientiousness, and civic virtue (Thiruvankadam & Durairaj, 2017).

Most respondents agreed that they would assist their colleagues with work-related matters, and that they had a greater desire to go the extra mile in their work during the COVID-19 pandemic. From this it is evident that the employees of the provincial Health Department displayed high levels of altruism, by offering to help others with specific work-related tasks. Wagner and Rush (2010) suggest that the display of altruism is dependent on the intentions of individuals across different ages.

Similarly, the respondents agreed that given how the Department handled the pandemic, they would recommend their organisation to other individuals who are seeking work, which also displays sportsmanship and is linked to OCB that benefits the organisation. Sportsmanship is a fundamental extension of loyalty within the organisation – it involves avoiding negative behaviours that may impact the organisation's well-being and focuses on how the organisation positively affects an employee's work (Galletta & Portogbese, 2012).

When the organisation seems to support their employees and when the values of collaboration and participation are emphasised, this can result in higher displays of OCB as supported by other studies carried out by Dasgupta (2021) and Alshaabani et al. (2021). The Department saw a heightened display of OCB during COVID-19, in terms of the loyalty employees extended to their organisation and their colleagues – which illustrates how Citizenship Behaviours are discretionary and do not form part of any job-related performance requirements (Benuyenah, 2021). Thiruvenskadam and Durairaj (2017) substantiate that these behaviours are generally informal and do not possess formal procedures and policies that are communicated in the organisation.

Overall, the results derived from the study were insightful and satisfactorily achieved the initially intended aim and objectives of the study. Consequently, the research questions were also sufficiently answered.

### Practical implications

The study contributes to the body of knowledge that exists around the link between Human Resources Management and Change Management, as through this study, future researchers can further investigate the long-term changes imposed on organisations by the COVID-19 pandemic, practices that have or will become more flexible or obsolete and how the pandemic-associated adjustments will continue to contribute to organisations' evolution long after the pandemic has completely abated.

Practically, this study allows organisations, including government departments to see the factors that have contributed to their success. It also gives managers a greater understanding of how employees perceive the constructs, and they could be able to re-adjust the OS, as well as facilitate communication, recognition, collaboration and participation.

### Limitations

The limitations associated with the study were as follows:

- The responses received were from one provincial department out of the nine that operate in South Africa, which would make it less practical for perceptions to be generalised and applied to all nine provincial Health Departments.
- Furthermore, a quantitative inquiry approach was used, which may have taken away from the deeper insights which a qualitative or mixed methods approach may have afforded.
- The time constraints that were associated with data collection because the study was conducted in partial fulfilment of a postgraduate qualification.
- Some respondents who had initially agreed to participate in the study ended up being excluded from the study as they did not meet the survey completion deadline, which resulted in fewer surveys being obtained than were distributed.

- Also, a few inconsistent responses resulted in items having to be excluded from the data analysis, which further reduced the scope of inputs.

### Recommendations

The authors inferred the following recommendations from the study:

- To further validate or improve on the results of this study, a follow up investigation can be done in a different province, industry or context to further address the impact of the pandemic on the OS of a government department.
- To further develop the literature, a different research method could be used to gain a deeper insight into the study.
- Future research can also build up on the current study in terms of expanding further on the theoretical framework used.

### Conclusion

This study revealed key concepts that impacted the organisation's ability to handle the effects of the COVID-19 pandemic. Recognition, communication, participation, and collaboration are fundamental concepts that allow an organisation's structure to remain effective which essentially allows the organisation to succeed as each employee understands how their work contributes to the overall success of the organisation. By recognising employees' efforts, the organisation positively reinforces their good behaviour which influences them to go the extra mile. Good communication lets employees know how their work contributes to the organisation and the enforcement of a sound OS encourages an organisation to handle the consequences of external unforeseen crises more effectively.

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#### Competing interests

The authors declare that they have no financial or personal relationship(s) that may have inappropriately influenced them in writing this article.

#### Authors' contributions

This article was adapted from the honours research of K.N.N., V.L.M., M.T.M., T.M.T. and T.S.M. who executed and wrote-up the study, while M.D.S. was the study leader and provided supervision, conceptualisation guidelines, methodology refinement, data analysis and interpretation, editorial inputs, and the final write-up of the research article.

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#### Data availability

The original dataset from which the results of this article were analysed and delineated are available on the researchers' electronic database.

## Disclaimer

The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of any affiliated agency of the authors.

## References

- Aguinis, H., & Burgi-Tian, J. (2021). Talent management challenges during COVID-19 and beyond: Performance management to the rescue. *Business Research Quarterly*, 24(3), 233–240. <https://doi.org/10.1177/23409444211009528>
- Ahmadya, G.A., Mehrpour, M., Nikooravesh, A., & Monavarian, M. (2017). 3rd International conference on new challenges in management and organization: Organization and leadership. *Procedia of Social and Behavioural Sciences*, 230(4), 455–462. <https://doi.org/10.1016/j.sbspro.2016.09.057>
- Ahmed, M.A. (2017). The importance of the organisational structuring and departmentalization in the workplace. *The Journal of Middle East and North Africa Sciences*, 3(3), 30–38. <https://doi.org/10.12816/0034796>
- Alipoor, H., Ahmadi, K., Pouya, S., Ahmadi, K., & Mowlaie, S. (2017). The effect of organizational structure on employee's job performance in private hospitals of Ahvaz. *Journal of Ecophysiology and Occupational Health*, 17(3&4), 119–123. <https://doi.org/10.18311/jeoeh/2017/19831>
- Alonazi, W.B. (2020). The impact of emotional intelligence on job performance during COVID-19 crisis: A cross-sectional analysis. *Psychology Research and Behaviour Management*, 13(1), 749–757. <https://doi.org/10.2147/PRBM.S263656>
- Alshaabani, A., Naz, F., Magda, R., & Rudnak, I. (2021). Impact of perceived organizational support in OCB in the time of COVID-19 pandemic in Hungary: Employee engagement and affective commitment as mediators. *Sustainability*, 13(14), 7800. <https://doi.org/10.3390/su13147800>
- Arkkelin, D. (2014). *Using SPSS to understand research and data analysis*. Valparaiso University. Retrieved from [https://scholar.valpo.edu/cgi/viewcontent.cgi?article=1000&context=psych\\_oer](https://scholar.valpo.edu/cgi/viewcontent.cgi?article=1000&context=psych_oer)
- Atoko, S.R. (2021). The impact of remote working on employee performance during the coronavirus (COVID19) pandemic. *International Journal of Economics, Commerce and Management*, 9(2), 369–383. Retrieved from <http://ijecm.co.uk/wp-content/uploads/2021/02/9223.pdf>
- Bawa, M.A. (2017). Employee motivation and productivity: A review of literature and implications for management practice. *International Journal of Economics, Commerce and Management*, 5(12), 662–673. Retrieved from [https://www.researchgate.net/publication/334263937\\_EMPLOYEE\\_MOTIVATION\\_AND\\_PRODUCTIVITY\\_A\\_REVIEW\\_OF\\_LITERATURE\\_AND\\_IMPLICATIONS\\_FOR\\_MANAGEMENT\\_PRACTICE?enrichId=rgreq-3cf79956436abe0b603f0d0d23729d77-XXX&enrichSource=Y292ZlXlQWVldOzMzNDI2MzZnZtBzUo3NzOzND](https://www.researchgate.net/publication/334263937_EMPLOYEE_MOTIVATION_AND_PRODUCTIVITY_A_REVIEW_OF_LITERATURE_AND_IMPLICATIONS_FOR_MANAGEMENT_PRACTICE?enrichId=rgreq-3cf79956436abe0b603f0d0d23729d77-XXX&enrichSource=Y292ZlXlQWVldOzMzNDI2MzZnZtBzUo3NzOzND)
- Benueyeh, V. (2021). Theorising an organizational citizenship behaviour model for managerial decision-making: From history to contemporary application. *Management Research Review*, 44(8), 1182–1198. <https://doi.org/10.1108/MRR-07-2020-0422>
- Bhaduri, R.M. (2019). Leveraging culture and leadership in crisis management. *European Journal of Training and Development*, 43(5/6), 534–549. <https://doi.org/10.1108/EJTD-10-2018-0109>
- Bowers, M.R., Hall, J.R., & Srinivasan, M.M. (2017). Organizational culture and leadership style: The missing combination for selecting the right leader for effective crisis management. *Business Horizons*, 60(4), 551–563. <https://doi.org/10.1016/j.bushor.2017.04.001>
- Browning, L.D. (1991). Organisational narratives and organisational structure. *Journal of Change Management*, 4(3), 59–67. <https://doi.org/10.1108/EUM000000001199>
- Brunet, F., Malas, K., & Fleury, D. (2021). A model of an agile organization designed to better manage the COVID-19 crisis. *Healthcare Management Forum*, 34(2), 115–118. <https://doi.org/10.1177/0840470420980478>
- Buhaid, N., & Buheji, M. (2022). Nursing human factor during COVID-19 pandemic. *International Journal of Nursing Science*, 10(1), 12–24. <https://doi.org/10.5923/j.nursing.20201001.02>
- Burkov, V., Goubko, M., Korgin, N., & Novikov, D. (2015). *Theory of control in organizations: An introduction (mechanism design for efficient management)*. ResearchGate. Retrieved from [https://www.researchgate.net/publication/273142860\\_Introduction\\_to\\_Theory\\_of\\_Control\\_in\\_Organizations](https://www.researchgate.net/publication/273142860_Introduction_to_Theory_of_Control_in_Organizations)
- Burton, R.M., & Obel, B. (2018). The science of organizational design: Fit between structure and coordination. *Journal of Organization Design*, 7(1), 1–13. <https://doi.org/10.1186/s41469-018-0029-2>
- Bussin, M. (2017). *Performance management REBOOT*. K R Publishing.
- Carini, E., Gabutti, I., Frisicale, E.M., Di Pilla, A., Pezzullo, A.M., De Waure, C., Cicchetti, A., Boccia, S., & Specchia, M.L. (2020). Assessing hospital performance indicators. What dimensions? Evidence from an umbrella review. *BMC Health Services Research*, 20, 1038. <https://doi.org/10.1186/s12913-020-05879-y>
- Chamisa, S.F., Mjoli, T.Q., & Mhlanga, T.S. (2020). Psychological capital and organizational citizenship behaviour in selected public hospitals in the Eastern Cape of South Africa. *SA Journal of Human Resource Management*, 18(1), 1–12. <https://doi.org/10.4102/sajhrm.v18i0.1247>
- Chetty, P. (2016). Control theory of performance management system. *Projectguru*. Retrieved from <https://www.projectguru.in/control-theory-performance-management-system/>
- Chong, J. (2021). Riding on the waves of the COVID-19 pandemic in re-thinking organizational design: A contingency-based approach. *Journal of Strategy and Management*, 15(4), 628–646. <https://doi.org/10.1108/JSMA-07-2021-0142>
- Clawson, J.G. & Pitts, T. (2008). *Organizational Structure*. Retrieved n.d. from <http://dx.doi.org/10.2139/ssrn.910385>
- Conner, B., & Johnson, E. (2017). Descriptive Statistics. *American Nurse Today*, 12(11), 52–55. <https://www.myamericannurse.com/wp-content/uploads/2017/11/ant11-Research-101-1017a.pdf>
- Dasgupta, P. (2021). A study on the effect of team support and emotional exhaustion on organisational citizenship behaviour of nurses in COVID-19 pandemic: Mediation by team commitments. *IIM Ranchi Journal of Management Studies*, 1(2), 145–159. <https://doi.org/10.1108/IRJMS-09-2021-0129>
- Denisi, A.S., & Murphy, K.R. (2017). Performance appraisal and performance management: 100 Years of progress? *Journal of Applied Psychology*, 102(3), 421–433. <https://doi.org/10.1037/apl0000085>
- Foss, J. (2021). The impact of emotional intelligence on job performance during the COVID-19 crisis. *Journal of Management Studies*, 58(1), 270–274. <https://doi.org/10.1111/joms.12643>
- Funminiyi, A.K. (2018). Impact of organizational structure on employee engagement: Evidence from North Central Nigeria. *International Journal of Advanced Engineering, Management and Science*, 4(8), 579–589. <https://doi.org/10.22161/ijaems.4.8.1>
- Galletta, M., & Portogbese, I. (2012). Organizational citizenship behaviour in healthcare: The roles of autonomous motivation, affective commitment and learning orientation. *International Review of Social Psychology*, 25(3–4), 121–145. Retrieved from [https://www.researchgate.net/publication/255568301\\_Organizational\\_citizenship\\_behavior\\_in\\_healthcare\\_The\\_roles\\_of\\_autonomous\\_motivation\\_affective\\_commitment\\_and\\_learning\\_orientation](https://www.researchgate.net/publication/255568301_Organizational_citizenship_behavior_in_healthcare_The_roles_of_autonomous_motivation_affective_commitment_and_learning_orientation)
- Gossett, L.M. (2009). Organizational control theory. In *Encyclopedia of communication theory* (pp. 706–710). Sage. Retrieved from [https://edge.sagepub.com/system/files/77593\\_9\\_2ref.pdf](https://edge.sagepub.com/system/files/77593_9_2ref.pdf)
- Haniff, A.P., Bititci, U.S., & Mohammadi, R. (2018). Performance measurement and management in temporary organizations: An organizational control theory perspective. In *25th EurOMA Conference*, 24 – 26 June 2018. (pp. 1–10). European Operations Management Association (EurOMA).
- Ince, J., & Minhas, J.S. (2020). A lesson from the COVID-19 pandemic: Preparing future health care professionals. *Journal of Emergency Medicine*, 59(5), 718–719. <https://doi.org/10.1016/j.jemermed.2020.06.079>
- Kaliyadan, F., & Kulkarni, V. (2019). Types of Variables, Descriptive Statistics, and Sample Size. *Indian Dermatology Online Journal*, 10(1), 82–86. [https://doi.org/10.4103/idoj.IDOJ\\_468\\_18](https://doi.org/10.4103/idoj.IDOJ_468_18)
- Kaplan, R.M., & Saccuzzo, D.P. (2017). *Psychological testing: Principles, applications, and issues* (9th ed.). Cengage Learning.
- Kaur, P., Stoltzfus, J., & Yellapu, V. (2018). Descriptive statistics. *International Journal of Academic Medicine*, 4(1), 60–63. [https://doi.org/10.4103/IJAM.IJAM\\_7\\_18](https://doi.org/10.4103/IJAM.IJAM_7_18)
- Korb, K. (2017). *Conducting educational research: Validity of instruments*. Retrieved from <http://korbedpsych.com/R09eValidity.html>
- Lakens, D. (2022). Sample size justification. *Collabra: Psychology*, 8(1), 33267. <https://doi.org/10.1525/collabra.33267>
- Luthans, F., & Stajkovic, A.D. (2021). *The impact of recognition on employee performance: Theory, research and practice*. Retrieved from <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.460.7567&rep=rep1&type=pdf>
- Madlabana, C.Z., & Petersen, I. (2020). Performance management in primary healthcare: Nurses' experiences. *Curatonia*, 43(1), a2017. <https://doi.org/10.4102/curationis.v43i1.2017>
- Maphumulo, W.T., & Bhengu, R.S. (2019). Challenges of quality improvement in the healthcare of South Africa post-Apartheid: A critical review. *Curatonia*, 42(1), a1901. <https://doi.org/10.4102/curationis.v42i1.1901>
- Masri, N.E., & Suliman, A. (2019). Talent management, employee recognition and performance in the research institutions. *Studies in Business and Economics*, 14(1), 127–140. <https://doi.org/10.2478/sbe-2019-0010>
- Maura, G., & Igor, P. (2013). Organizational citizenship behaviour in healthcare: The roles of autonomous motivation, affective commitment and learning orientation. *Revue Internationale de Psychologie Sociale*, 25, 121–145.
- Minsel, T. (2022). Sample size: The requirements for a reliable study. *Trone Research + Consulting*. Retrieved from <https://www.tronersearch.com/blog/sample-size-requirements-reliable-study>
- Mohajan, H.K. (2020). Quantitative research: A successful investigation in natural and social sciences. *Journal of Economic Development, Environment and People*, 9(4), 50–79. <https://doi.org/10.26458/jedep.v9i4.679>
- Monavarian, A., Asgari, N., & Ashna, M. (2007). Structural and content aspects of the knowledge oriented organizations. 1st National conference on management of knowledge, 13–14 razi international center, Tehran, pp. 10–20.
- Muhammad, M.R., & Ikramullah, M. (2020). Organizational structure and project success: The mediating role of knowledge sharing. *Journal of Information and Knowledge Management*, 19(2), 2050007. <https://doi.org/10.1142/S0219649220500070>

- Naqshbandi, M.M., & Kaur, S. (2011). A study of organizational citizenship behaviours, organizational structures and open innovation. *International Journal of Business and Social Science*, 2(6), 182–193.
- National Department of Health, RSA. (2021). *Annual report 2020/2021*. Retrieved from <https://www.health.gov.za/wp-content/uploads/2021/11/Annual-Report-2020-2021.pdf>
- Nene, S.W., & Pillay, A.S. (2019). An investigation of the impact of organizational structure on organizational performance. *Financial Risk and Management Review*, 5(1), 10–24. <https://doi.org/10.18488/journal.89.2019.51.10.24>
- Ngobeni, D.A., Saurombe, M.D., & Joseph, R.M. (2022). The influence of the psychological contract on employee engagement in a South African bank. *Frontiers in Psychology-Organisational Psychology*, 13, 958127. <https://doi.org/10.3389/fpsyg.2022.958127>
- Nimmi, P.M., & John, A. (2020). *Organisational engagement during remote work – HR perspectives*. Retrieved from [https://www.researchgate.net/publication/346941174\\_Organisational\\_engagement\\_during\\_Remote\\_work\\_HR\\_perspectives](https://www.researchgate.net/publication/346941174_Organisational_engagement_during_Remote_work_HR_perspectives)
- Nkate, J. (2020). The effect of COVID-19 on the work arrangements in the South African public service. *American Journal of Political Science*, 3(1), 146–158. <https://doi.org/10.55390/ajpsdg.2020.3.1.8>
- Onyekwelu, R.U., & Nwosu, E.E. (2021). Leadership and employee productivity: A study of Anambra State Ministry of Works, 2006–2014. *International Journal of Innovative Psychology & Social Development*, 9(2), 54–67.
- Ornell, F., Schuch, J.B., Sordi, A.O., & Kessler, F. (2020). 'Pandemic fear' and COVID-19: Mental health burden and strategies. *Brazilian Journal of Psychiatry*, 42(3), 232–235. <https://doi.org/10.1590/1516-4446-2020-0008>
- Ott, R.L., & Longnecker, M. (2001). *An introduction to statistical methods & data analysis* (5th ed.). Duxbury Thompson Learning.
- Pass, S., & Ridgway, M. (2022). An informed discussion on the impact of COVID-19 and 'enforced' remote working on employee engagement. *Human Resource Development International*, 25(2), 254–270. <https://doi.org/10.1080/13678868.2022.2048605>
- Pillay, Y., Pienaar, S., Barron, P., & Zondi, T. (2021). Impact of COVID-19 on routine primary healthcare services in South Africa. *South African Medical Journal*, 111(8), 714–719. <https://doi.org/10.7196/SAMJ.2021.v111i8.15786>
- Podsakoff, P.M., MacKenzie, S.B., Paine, J.B., & Bachrach, D.G. (2000). Organizational Citizenship Behaviors: A Critical Review of the Theoretical and Empirical Literature and Suggestions for Future Research. *Journal of Management*, 26(3), 513–563. <https://doi.org/10.1177/014920630002600307>
- Renani, G.A., Ghaderi, B., & Mahmoudi, O. (2017). The impact of organizational structure on the effectiveness of communication from the perspective of employees in the Department of Education. *International Journal of Management, Accounting and Economics*, 4(10), 989–1001. Retrieved from [https://www.ijmae.com/article\\_115158\\_45d105d88a64936d16cca21363682f93.pdf](https://www.ijmae.com/article_115158_45d105d88a64936d16cca21363682f93.pdf)
- Rwafa-Ponela, T., Goudge, J., & Christofides, N. (2021). Organisational structure and human agency within the South African health system: A qualitative case study of health promotion. *Health Policy and Planning*, 36(1), 46–58. <https://doi.org/10.1093/heapol/czab086>
- Saunders, M.N., Lewis, P., & Thornhill, A. (2019). *Research methods for business students* (8th ed.). Pearson.
- Saurombe, M.D., & Barkhuizen, E.N. (2022). Talent management practices and work-related outcomes for South African academic staff. *Journal of Psychology in Africa*, 32(1), 1–6. <https://doi.org/10.1080/14330237.2021.2002033>
- Saurombe, M.D., Rayners, S.S., Mokgobu, K.A., & Manka, K. (2022). The perceived influence of remote working on specific HRM outcomes during the COVID-19 pandemic. *South African Journal of Human Resource Management*, 20, a2033. <https://doi.org/10.4102/sajhrm.v20i0.2033>
- Shingenge, S.N., & Saurombe, M.D. (2022). Leadership mindset regarding talent management practices: A case study of Windhoek City Council. *South African Journal of Human Resource Management*, 20, a1730. <https://doi.org/10.4102/sajhrm.v20i0.1730>
- Shrotriyia, V.K., & Dhanda, U. (2020). Development of employee engagement measure: Experiences from best companies to work for in India. *Measuring Business Excellence*, 24(3), 319–343. <https://doi.org/10.1108/MBE-07-2019-0071>
- Shukri, N.F., & Ramli, A. (2015). Organizational structure and performances of responsible Malaysian healthcare providers: A balanced scorecard perspective. In *7th International Conference on Financial Criminology*, 13–14 April 2015. (pp. 202–212). Wadham College.
- Snell, S.A. (1992). Control theory in strategic human resource management: The mediating effect of administrative information. *The Academy of Management Journal*, 35(2), 292–327. <https://doi.org/10.2307/256375>
- Soubjaki, M. (2021). The impact of COVID-19 on employees engagement. *Journal of Contemporary Research in Business Administration and Economic Sciences*, 1(2), 44–52. <https://doi.org/10.52856/jcr311280122>
- Thiruvenkadam, T., & Durairaj, I.Y.A. (2017). Organizational citizenship behaviour: Its definitions and dimensions. *GE-International Journal of Management Research*, 5(5), 46–55. Retrieved from [https://www.researchgate.net/publication/331399532\\_ORGANIZATIONAL\\_CITIZENSHIP\\_BEHAVIOR\\_ITS\\_DEFINITIONS\\_AND\\_DIMENSIONS?enrichId=rgreq-c3bb40e7b4fcef16a313a20a01a0b2f-XXX&enrichSource=Y292ZlQYWdOzMTM5OTUzMjBtUzo3MzEyMjA4NjIzMTY1NDVAMTU1MTMOODA0NzA3OQ%3D%3D&el=1\\_x\\_2&\\_esc=publicationCoverPdf](https://www.researchgate.net/publication/331399532_ORGANIZATIONAL_CITIZENSHIP_BEHAVIOR_ITS_DEFINITIONS_AND_DIMENSIONS?enrichId=rgreq-c3bb40e7b4fcef16a313a20a01a0b2f-XXX&enrichSource=Y292ZlQYWdOzMTM5OTUzMjBtUzo3MzEyMjA4NjIzMTY1NDVAMTU1MTMOODA0NzA3OQ%3D%3D&el=1_x_2&_esc=publicationCoverPdf)
- Traylor, A.M., Tannenbaum, S.I., Thomas, E.J., & Salas, E. (2021). Helping healthcare teams save lives during COVID-19: Insights and countermeasures from team science. *The American Psychologist*, 76(1), 1–13. <https://doi.org/10.1037/amp0000750>
- Verburg, R.M., Nienaber, A.-M., Searle, R.H., Weibel, A., Den Hartog, D.N., & Rupp, D.E. (2018). The role of organizational control systems in employees' organizational trust and performance outcomes. *Group & Organization Management*, 43(2), 179–206. <https://doi.org/10.1177/1059601117725191>
- Wagner, S.L., & Rush, M.C. (2010). Altruistic organizational citizenship behaviour: Context, disposition, and age. *The Journal of Social Psychology*, 140(3), 379–391. <https://doi.org/10.1080/00224540009600478>
- Yaakobi, E., & Weisberg, J. (2020). Organizational citizenship behavior predicts quality, creativity, and efficiency performance: The roles of occupational and collective efficacies. *Frontiers in Psychology-Organizational Psychology*, 11, 758. <https://doi.org/10.3389/fpsyg.2020.00758>
- Yellapu, V. (2018). Descriptive statistics. *International Journal of Academic Medicine*, 4(1), 60–63. [https://doi.org/10.4103/IJAM.IJAM\\_7\\_18](https://doi.org/10.4103/IJAM.IJAM_7_18)
- Zhang, H., Zhao, Y., Zou, P., Lin, S., Mu, S., Deng, Q., Du, C., Zhou, G., Wu, J., & Gan, L. (2021). Explaining organizational citizenship behaviour among Chinese nurses combating COVID-19. *Risk Management and Healthcare Policy*, 14(1), 979–986. <https://doi.org/10.2147/RMHP.S292436>