

Professionalisation and social attitudes: a protocol for measuring changes in HIV/AIDS-related stigma among healthcare students

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ABSTRACT

Introduction: HIV/AIDS-related stigma affects the access and utilisation of health services. Although HIV/AIDS-related stigma in the health services has been studied, little work has attended to the relationship between professional development and stigmatising attitudes. Hence, in this study, we will extend earlier research by examining the relationship between the stage of professional development and the kinds of stigmatising attitudes held about people living with HIV/AIDS.

Methods and analysis: A serial cross-sectional design will be combined with a two-point in time longitudinal design to measure the levels of stigma among healthcare students from each year of undergraduate and graduate courses in Malaysia and Australia. In the absence of suitable measures, we will carry out a sequential mixed methods design to develop such a tool. The questionnaire data will be analysed using mixed effects linear models to manage the repeated measures.

Ethics and dissemination: We have received ethical approval from the Monash MBBS executive committee as well as the Monash University Human Research Ethics Committee. We will keep the data in a locked filing cabinet in the Monash University (Sunway campus) premises for 5 years, after which the information will be shredded and disposed of in secure bins, and digital recordings will be erased in accordance with Monash University's regulations. Only the principal investigator and the researcher will have access to the filing cabinet. We aim to present and publish the results of this study in national and international conferences and peer-reviewed journals, respectively.

INTRODUCTION

A healthcare workforce that is responsive and fair in its treatment of patients is one of the central pillars of a modern health system.¹ It is for this reason, among others, that healthcare workers are bound by ethical

ARTICLE SUMMARY

Article focus

- The primary objective of this research is to examine the relationship between professionalisation and stigmatising attitude towards people living with HIV/AIDS among healthcare students.
- The secondary aim of this study is to investigate the availability of suitable measurement tool(s)—otherwise to create a scale to measure the transformation of HIV/AIDS-related stigma in the context of the health professionals' work environment.

Key messages

- A fair and responsive health system requires a healthcare workforce that is blind to the 'undeserving' and the 'morally reprehensible'; hence, studying the professional development in relation to the stigmatising attitude development is of great importance in addressing the inequalities in the delivery of care.

Strengths and limitations of this study

- The major strength of this protocol is its design which will allow us to study the professional development and possible change(s) in attitudes over a time period.
- The limitation of this study is the uncertainties pertaining to the sample size calculation as well as the fact that we may measure a self-reported attitude rather than an actual attitude. The sampling limitations imposed by ethical requirements also raise issues about a selection bias. While the possibility of the bias needs to be acknowledged, the nature of the research question probably limits the bias.

codes of practice to treat patients according to their need, and not according to their gender, religious beliefs, sexual orientation, skin colour or other socially (de)valued attributes.² Possible exceptions to this rule of social blindness arise when those otherwise ignorable social attributes may affect the

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diagnosis, prognosis or choice of the most effective treatment.

What should happen, however, when the patient is perceived as a complete reprobate—a repugnant individual whose very presence challenges the healthcare worker's moral foundation? In theory, the answer is simple—treat the patient in front of you according to their healthcare need.

The challenge for the health system is that practice does not necessarily mirror professional intent, and personal prejudices and fear of contagion interfere in decisions for care.^{3–5} The literature is replete with examples of patients who are accorded different (worse) treatment because of some perceived moral taints.⁶ The HIV epidemic provides a classic case in point. Healthcare workers have reported not wanting to treat people living with HIV/AIDS (PLWHA) for a range of reasons, including: because the patient was undeserving, or because treating PLWHA would devalue the healthcare worker in the eyes of others.⁷ This situation has, in many instances, created a tiered health system in which 'deserving' patients have received treatment and the 'undeserving' have not.⁶ High levels of stigma and discrimination are associated with a reduction in access to treatment and care for those with undesirable attributes.⁸

To overcome the dangers of discrimination associated with the social valuation of HIV/AIDS patients, many teaching programmes now contain explicit or integrated learning objectives that relate to professionalisation.⁹ The process of professionalisation fosters the inculcation of acceptable practice of healthcare workers in line with societal expectations, and the social contract between the client and the healthcare worker.^{10–12} In this context, increasing the professionalism of the healthcare workforce is as much about improved technical competency as it is about ethics of practice. Increasing professionalisation is thus expected to result in less stigma and discrimination in healthcare settings.¹³

Whether professionalisation does protect patients against the creation of tiered healthcare is an empirical question, but there is reason to believe that it would work by reducing negative attitudes and discriminatory behaviour towards patients—particularly those from socially marginalised groups, such as HIV/AIDS patients. There is already some evidence in the literature to support this idea.^{14 15} For instance, it is known that targeted learning focused on attitudes to specific marginalised groups can result in a positive attitudinal change.¹⁶ What is less clear is whether a generic focus on professionalisation not focused specifically on one disease or another is sufficient to improve attitudes towards all socially marginalised groups regardless of the socially devalued attribute.

In posing the idea that professionalisation may reduce stigmatising attitudes, two refinements need to be introduced. The first is a distinction between generic professionalisation and targeted learning, because it goes to the heart of ensuring a responsive and fair health

system. For instance, in targeted learning, if programmes need to be developed to address stigmatising attitudes of a healthcare workforce to every marginalised group or disease, the cost will be too high and the educational process will always be reactive. By contrast, a generically professional healthcare workforce that understands and follows a holistic approach to the ethical codes of conduct is a more flexible workforce, which is less likely to create a tiered healthcare system.

The second refinement is to draw a distinction between an individual as a healthcare professional and that same individual within a private, non-professional domain. There is no reason to assume that the equanimity possessed in the professional domain towards socially marginalised people will translate into the private life of health professionals. Furthermore, there is no overwhelming reason to believe that it would be appropriate for professional attitudes to be always concordant with private attitudes, and earlier investigations of social attitudes among (future) healthcare professionals have clearly depicted discordant attitudes in personal and professional domains.¹⁷ For example, I may be 'blind' to the fact that a person is a paedophile for the purposes of treating their myocardial infarction, but my vision might be restored if there is some indication that they are joining my social circle.

One might anticipate, therefore, that with increasing professionalisation there will arise a degree of bifurcation in the social attitudes of healthcare workers towards marginalised people. Specifically, while negative attitudes towards the socially marginalised may decrease with increasing professionalisation, for the purposes of providing treatment and care, the same change in attitude may not be observed towards the socially marginalised in the personal domain.

Rationale

Although HIV/AIDS-related stigma in the health services has been studied, little work has attended to the relationship between professional development and changes in stigmatising attitudes. Indeed, most research has relied on cross-sectional data to assess generic levels of stigma,^{18–28} without attempting to understand how attitudes may develop and change over time, or differences between stigma associated with the professional and private domains of life. This question is particularly crucial in the context of health service provision, because of the hypothesised link between the trajectory of stigmatising attitudes and the trajectory of professional development.

The primary main objective of this study is to investigate the relationship between the stage of professional development of healthcare students and the kinds of stigmatising attitudes held about PLWHA. More specifically, we aim to measure the attitudes of students towards PLWHA to assess (1) the level of stigmatising attitudes, (2) differences between attitudes in professional and private domains and (3) changes in the differences

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between attitudes in professional and private domains as the students become increasingly professionalised.

Although there are a number of measures of stigma, there are few separate measures of stigmatising attitudes in professional and private domains and none validated for use in our research setting. The conditional secondary objective, therefore, is to develop a suitable tool to measure the stigmatising attitudes in professional and private domains. This secondary objective, however is described in less detail and the protocol assumes that such a measure is identifiable.

METHOD AND ANALYSIS

Study design

The ideal design for this research would be a 4-year to 5-year longitudinal study of healthcare students measuring changes in attitude over their professional course; however, an alternative approach is proposed which limits the resource expenditure while providing a good indication of the idea's merit. Instead of a longitudinal design, a serial cross-sectional design (to examine differences between cohorts in different years of study) will be combined with a two-point in time longitudinal design (to examine differences between the beginning and the end of a single year of study; [figure 1](#)). Levels of stigma will be measured once at the beginning of a single year of study and once at the end of the same year, and this will be conducted across year cohorts.

Study population

Monash University is an Australian university that has multiple campuses in Australia as well as in Malaysia and South Africa. In this study, we will recruit Monash University healthcare students from three campuses (two campuses in Australia and one campus in Malaysia). Students over the age of 17, studying a 4-year plus, professional, healthcare qualification, degree course will be eligible.

Students with a previous healthcare qualification will be excluded; for example, a nurse returning to university to pursue medicine. Also, students below the age of

17 will be excluded. There are no other exclusion criteria.

Sample size calculation

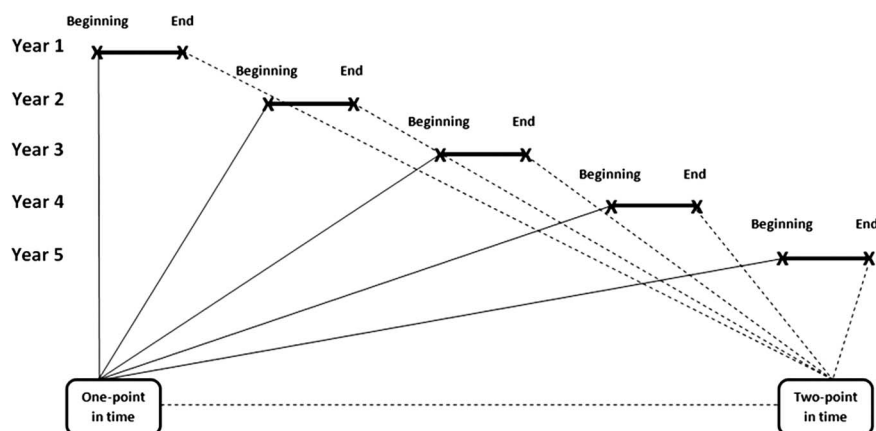
Usually the number of predictor variables, the variability in the outcome variable, the correlation between the repeated measures, and the type of statistical test planned are used to calculate the minimum number of respondents needed to achieve a significant result with known probability.²⁹ The variability in the outcome measures is unknown, as is the correlation between the repeated measure of personal and professional stigma, making a realistic sample size calculation almost impossible.³⁰ However, a recent study of HIV knowledge and stigma in a Malaysian healthcare cohort provides a crude guide.³¹ In that study without repeated measures, a sample size of 340 was calculated. Inflating this estimate to account for the repeated measurement, in what amounts to a conservative design effect of 2.5, leads to an estimated sample size of 850. However, the ethical mechanisms operating within the University for the use of students as participants prevent random sampling and one must, in reality, attempt to contact all students.

Data analysis plan

If the assumptions hold, we anticipate the use of mixed effects linear models to examine differences between the level of stigmatising attitudes between year-group cohorts, controlling for appropriate covariates, such as age, sex, ethnographic backgrounds and course.

The approach to the analysis of the data assumes a serial cross-sectional design. It is conceptually simple to think of the data analysis in terms of repeated measures analysis of covariance (ANCOVA) where stigmatising attitudes are the outcome measures measured twice within a person (ie, a measure of personal and professional stigma). The level of professionalism is treated as an ordered factor based on years of study; and sex, level of HIV knowledge, and the type of degree programme are treated as nominal, interval and nominal covariates, respectively.

Figure 1 Study design for MBBS programme.



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In the preliminary stages, exploratory data analysis will be used to check and describe the data. However, rather than repeated measures of ANCOVA, which was described for its conceptual simplicity, a mixed effects linear model will be fitted to the data to control for repeated measures of stigma within a person. The great advantages of the mixed effects linear model for repeated measures designs is that if one of the outcome measures is missing (eg, if a participant fails to complete the personal stigma scale but does complete the professional stigma scale), the remaining data from the individual can still be retained. The data will be analysed using the R statistical environment.³²

Measurement tool

There is currently no measurement tool designed to measure stigmatising attitudes in a professional and private domain separately, and this is the secondary objective of the research. We will carry out a sequential mixed methods design to develop a measurement tool (ie, a questionnaire). We will form a group of healthcare specialist(s), health academics and healthcare team members, that is, nurses, medical doctors, pharmacists, etc with at least 5 years of clinical experience, and together we will implement a four-step approach to create the new measurement tool

1. We will define the main facets and domains of the measurement tool based on 'personal domains of stigma' versus 'professional domain of stigma in the context of a health professional's work environment'. We anticipate that this could be achieved by creating brief hypothetical scenarios about HIV positive individuals and HIV negative individuals in health settings. These hypothetical scenarios—vignettes—could be themed to reflect fear of contagion, etc. For example, a scenario in which 'a physician refuses to operate on a patient with HIV/AIDS to protect themselves from contracting HIV/AIDS'.
2. We will decide on the items for 'personal domain of stigma' and 'professional domain of stigma' either by adopting the available items from the available validated measurement tools or by developing new items. For instance, we will search the relevant sources of information, that is, published articles, book chapters, organisational documents like international and national codes of professional conduct and ethics in the health field to develop new items for 'professional domain of stigma'.^{2 13 33–38} We anticipate that common themes reflecting the traits of professionalism could be extracted from the above said sources of information. For example, fear of contagion, risks of infectivity, confidentiality and resource allocation could be the themes that might surface.
3. We will design the new items as such to capture the interplay between a social, either professional or personal, responsibility and a potentially stigmatised (HIV positive) or non-stigmatised (HIV negative) characteristic.

4. We will draft the finalised items to create a scale—a questionnaire—and will validate it.

We will administer the measurement tool in a series of time points to capture any change(s) in attitude.

Data collection

We will collect the data using the newly developed questionnaire by administering paper-based and/or online surveys. The online version of the survey will be available via the 'Blackboard' class management system, with a link in the announcements as the student's login (Australia). The paper-based version will be distributed in classrooms at the end of the taught session (Malaysia). There is no risk of students receiving the online version also receiving the paper-based version.

The questionnaire will contain demographic questions and the initial item pool of questions on HIV/AIDS-related stigma. We will also provide each participant with the questionnaire and explanatory statement—describing the purpose of the research, methods, etc.

Participating sites

We anticipate that healthcare students from each year will be invited to participate in the study over a 1-year period. This will allow us to examine differences between the level of stigmatising attitudes between year-group cohorts, controlling for appropriate covariates, such as age, sex, ethnographic backgrounds, cultural backgrounds and course.

DISCUSSION

Definitions

In the context of future healthcare professionals, the years towards the professional development could be considered as one indicator of professionalisation. Clinical knowledge, as well as knowledge of contagion and transmission, will increase with years in a healthcare programme. Within a modern healthcare programme, however, there is also a focus on professional ethics and professional practice—often implicit rather than explicit—probably increasing with the shift from preclinical to clinical years in a programme. Under these circumstances, the years of training becomes a reasonable indicator of professionalisation. Unfortunately, professionalism then becomes confounded by knowledge of transmission.

Strengths and weaknesses

The strength of the study is the two-point in time longitudinal design that will enable us to investigate the relationship between stigmatising attitude towards PLWHA and professionalisation by looking at change(s) in attitudes over a time period.

The approach to sampling, which is not an ideal but a constraint placed by ethical requirements, raises the possibility of a selection bias. In a more general invitation to participate given to all students, those with particular

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attitudinal dispositions (or dispositions to change attitudes with professional exposure) may self-select. This needs to be noted as a limitation, and may warrant further study. However, the nature of the hypothesis that participants will change on one dimension of stigma attitudes but not another seems to provide some protection against the plausibility of the selection bias as an explanation for any observed difference.

The lack of a universally accepted measure of 'professionalism'^{39–41} in healthcare students or the healthcare workforce is an issue. However, within the context of this study, years of study is a reasonable indicator in the first instance.

Moreover, the bifurcation of social attitude into the private and professional domains might be less distinctive than anticipated, and requires large samples to detect the differences. We also anticipate collecting the self-reported attitude rather than the actual attitude and this, of course, would also raise questions about the practical importance of the issue, which could be a finding in its own right.

Conclusion

A fair and responsive health system requires a healthcare workforce that is blind to the 'undeserving' and the 'morally reprehensible'. If we do not gain a better understanding of the relationship between professionalisation and negative social attitudes and behaviour towards the socially marginalised, we are in danger of recreating a tiered healthcare system each time a new disease or a new social group is devalued. Notwithstanding the measurement challenges outlined here, the implications for professional education and the health systems agenda are sufficiently important to warrant further investigation.

Ethics and dissemination

Participation in this study will be completely voluntary, where the completion and return of the questionnaire will be taken as consent. This protocol has been approved by the Monash University Human Research Ethics Committee (approval number: CF12/0829–201200368) and categorised as low risk.

Data deposition

We will keep the data in a locked filing cabinet in the Monash University (Sunway campus) premises for 5 years, after which the information will be shredded and disposed of in secure bins, and digital recordings will be erased in accordance with Monash University's regulations. Only the principal investigator and the researcher will have access to the filing cabinet.

Dissemination plan

We aim to present and publish the results of this study in national and international conferences and peer-reviewed journals, respectively.

Contributors KA developed the concept and DDR reshaped it. KA and DDR have made substantive intellectual contributions to the manuscript. PA and MAAH have revised the manuscript critically and have improved the presentation of the ideas. All four authors have given final approval the publication of the manuscript.

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Competing interests None.

Ethics approval MBBS executive committee and Monash University Human Research Ethics Committee.

Provenance and peer review Not commissioned; externally peer reviewed.

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