

Philosophy and Paradigm in Health Studies: A context of Migration and Fertility

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Abstract

Postgraduate research is an important course carried out to solve an existing problem through policy and decision-making process. However, it is significant that research philosophy and paradigm be clearly declared in postgraduate research. Yet, this has been marginalized in health studies among postgraduate students. The paper contributes to scientific literature by guiding postgraduate students, particularly in public health. It highlights the relevance of adopting or choosing the appropriate research methods. This means that as is just section of my thesis, it sounds relevant to contribute existing literature. Though in the main study, cross-sectional design was used and source of data provided with a comprehensive analysis, these are considered in the other articles but for this, it is much particular about methodology or philosophy which is basically is not captured in most postgraduate studies and that what this article focuses on. The paper attempts to guide novice researchers on the choice of appropriate research paradigm. It outlined the concepts of ontology (the nature of reality), epistemology (how knowledge is acquired), and axiology (the role of values in research). It further explains key paradigms including positivism (objective and measurable reality), interpretivism (understanding subjective meanings), critical theory (challenging power structures), postmodernism (embracing multiple realities), and pragmatism (using methods that best address the research problem). In the context of migration and fertility, it has been suggested that these paradigms remain relevant though they pursue varied objectives.

Keywords: health education, postgraduates, research method, research philosophy

1. Introduction

One vital aspect in every research is the choice of method. The philosophy governs the entire study as it inform the selection of the study design, approach and methods (Creswell, 2015; Muhaise et al., 2020). The suitability of the methodology has impact on the research outcomes or results. But the philosophical concepts are marginalized in postgraduate research especially in public health. In fact many novice researchers are confused with the choice of research paradigms (Muhaise et al., 2020; Sefotho, 2015). Postgraduate research is bounded with individual's observations, beliefs, customs, experiences and adoptions as well as

systematic reviews. Research philosophy is supreme for a postgraduate researcher to position the study to suit a research philosophy that oversees the complete study (Muhaise et al., 2020). For philosopher's, the view point of research is a collection of beliefs and norms on the improvement of knowledge (Saunders et al., 2016, 2023). Considering the effect of migration on fertility as an example in this context. It may be obvious that migration compromise more on beliefs and tradition as a way of live changing phenomenon. However, fertility could be hindered by those beliefs and norms as perceived by society or organizations. Without the adaptation of an appropriate paradigm, an inadequate research design and approach would be utilized. The aim of this paper is to guide postgraduate students in conducting their research using adequate method. However, this paper is only a portion of MPhil. Study, the prospects of philosophy and paradigms are not extensively studied which may not empirically informed this current paper. Also, this paper is directed at health and specifying an area therefore may be bias towards other discipline.

1.1 Research Philosophy

The research philosophy can be differentiated on three basic assumptions namely; ontology, axiology and epistemology. The nature of reality focus on the *ontological* assumption, as researchers conceived the ontology norms that resistance to change was harmful to organisations, arguing it was a form of organizational misbehavior due to reform initiatives (Saunders et al., 2016, 2023). In this case, resistance is viewed as social and organizational adaptation, as fertility and migration can be linked to ontology philosophy of resistance to change. Migrants' resistance to modern fertility behaviors and norms can hinder community integration and demographic adaptation, suggesting the importance of adapting to contemporary certainties for long-term achievement or stability. *Epistemology* on the other hand assumed acceptance and validity of knowledge focusing on numerical data, visualization, facts or stories (Okesina, 2020; Pathak & Thapaliya, 2022; Saunders et al., 2016, 2019, 2023). Unlike ontology concept, migrant's fertility patterns, from epistemology perspective relies on numerical fact and visualizations to explain trend, while incorporating stories and experience to understands their evolution within socio-cultural and economic environments. This scenario underscore the responsibility to declare the study epistemological position (Sefotho, 2015). Also, the *axiology* model presumes the ethics and values of researchers when gathering data, explaining how researchers manage their own values and that of study subjects. It involves ethical considerations in research proposal planning, defining, evaluating, and understanding right and wrong behavior, determining value for research aspects, participants, data, and audience (Kivunja & Kuyini, 2017). The axiology approach informed the researchers the type of data and data collection they want. For instance, when using secondary data, the need to mimic bias in variable selection and respect the data policies of the source data is deemed appropriate. Therefore, minimising bias in primary data one should considered it as very crucial. Notwithstanding, upholding the cultural and ethical values of migrant's communities, fertility preference, and the image of the data source cannot be neglected under the axiology philosophy.

1.1 Research Paradigm

The research paradigms significantly influence the methods used to ask questions, analysed and interpret data, and comprehend reality. In this section, the three philosophies (ontology, epistemology and axiology) have been decentralized into five major paradigms comprising; Positivism, Interpretivism, Criticalism, Pragmatism, and Postmodernism. In fact, these assumptions have extensively been carried out in diverse discipline examining their meaning, applications and impact on the well-being of human and society. For instance, Turyahikayo (2021) studied philosophical paradigms as the bases for knowledge management

research and practice. He concluded that, knowledge management paradigms offer insightful methodologies and theoretical conceptualisations for administrators and researchers. In a systematic review, Rahi (2017) realized that a set of beliefs of different researchers on paradigms were adequately balanced. Therefore, it would be critical to understand that these philosophies are not different in the context of migration and fertility study.

1.1.1 Positivism

The positivist paradigm postulate that the reality of mankind independently varies. The positivist relies on scientific empiricist approach that produce pure data and fact (Saunders et al., 2016, 2023). The positivist method is position to determine the effect of an exposure variable on an outcome variable. For instance, strict positivists believe in certain truths and their measurement, often conducting rigorous investigational research and using hypothesis testing (Brown & Dueñas, 2020). In the context of this study, positivist posits that the phenomena individually are objective and measurable certainties that can be quantify, predict and determine cause-and-effect relationship. Positivism is a hypothetically-deductive science model that uses hypothesis testing to verify a priori hypotheses and experimentally operationalize variables, focusing on quantitative approaches to identify explanatory associations (Park et al., 2020). A revelation that this paradigm focuses purely on quantitative approach, hence fit in this study. Positivism is pure quantitative method mostly conducted in scientific-based research (Pathak & Thapaliya, 2022). Since migration patterns and fertility behaviour are measurable and predictable, the positivism paradigm would be suitable to investigate the effect of migration on the number of children ever born.

1.1.2 Pragmatism

Pragmatism employ the most suitable research methods to tackle complex social issues that require multifaceted approaches (Allemang et al., 2022; Brierley, 2017). It balance objectivism and subjectivism, facts and values, and rigorous knowledge by examining theories, concepts, opinions, hypotheses, and research findings in their practical contexts (Saunders et al., 2016, 2023). The approach can be classified as a mixed-method that employes both quantitative (objectivism) and qualitative (subjectivism) design in a single research (Brierley, 2017; Creswell, 2015; Pathak & Thapaliya, 2022). It allow researchers to test hypothesis using empirical data and find out people's perceptions, feelings and experience (Pathak & Thapaliya, 2022). Nevertheless, in the context of migration and fertility study, this approach can be used to examine migrants experience, feelings, desire for marriage, desire to give birth, number of births, or year lived in the place of residence; it will not be adopted in this particular study. Because, if the study primary objective is to determine the influence of migration on fertility using a secondary information only like DHS data and not to explore.

1.1.3 Interpretivism

This paradigm posits that the reality of human is comprehensively understood through interaction. This implies the physical phenomena of humans are different as they create meanings (Muhaise et al., 2020). Interpretivism also assume that, knowledge of the world is not influenced by human minds, but rather a product of human and social constructs (Gordon, 2016). It signifies that human and social constructs significantly influence our comprehension of migration patterns and fertility choices, shaping how migrants perceive and explore these preferences within diverse cultural and societal contexts. Interpretivism method can be used to navigate migrants experience and their fertility preferences in a qualitative manner. It study individuals experience by engaging interactively with them, and reporting the findings to represent the world that they inhabit (Tombs & Pugsley, 2020). Given the above and with a

study aim to determine association, it is apparent that the study is limited to use the interpretivist paradigm.

1.1.4 Critical Theory

Critical Theory assumes that individuals understand the world not only through their experiences and perceptions but also through the cultural, political, and social contexts that shape those experiences (Saunders et al., 2016). These experiences may include myths, ideologies, or misconceptions that influence people's worldview and behaviour. Hence, Critical Theory seeks to challenge and expose such distortions to empower individuals and promote social transformation (Brown & Dueñas, 2020; Pathak & Thapaliya, 2022). Epistemologically, Critical Theory adopts a subjective stance, recognizing that reality is shaped by cultural, political, gender, ethnic, and religious factors that influence both the researcher and the researched (Brown & Dueñas, 2020; Rehman & Alharthi, 2016). It therefore emphasizes the importance of acknowledging one's socio-cultural background and positionality while striving to minimize bias and maintain reflexivity throughout the research process (Saunders et al., 2016, 2023). In the field of health research, Critical Theory underscores how socio-cultural, political, and legal factors affect health outcomes and access to care, thereby informing health promotion and policy interventions (Pathak & Thapaliya, 2022). Within the context of migration and fertility, the theory highlights how cultural norms, social inequalities, and lived experiences shape migrants' reproductive health behaviors and decisions. However, if a study does not aim to uncover hidden ideologies or challenge social myths, this paradigm is not considered appropriate. Critical Theory aligns more closely with qualitative approaches that seek to explore and interpret lived experiences within their broader social context.

1.1.5 Postmodernism

In health, Postmodernism paradigm offer a valuable methodology for examining and analyzing political and ideological positioning in our actions, particularly in addressing systemic issues of justice and equity (Ellaway, 2020). This show that postmodernism can examines political and ideological factors influencing fertility preferences and reproductive health decisions, highlighting systemic justice and equity issues affecting migrant access to healthcare and family planning. Therefore, offers researchers opportunities to operate inductively by engaging migrants and understanding their fertility preferences. Certainly, this can be influenced by interpretivism and enable the adoption of qualitative approach in this paradigm. Postmodernism is influenced by the criticalism or interpretivism paradigm and the qualitative research methodology that stem from it (Osuji & Karkhah, 2023). Postmodernism philosophy employs the qualitative approach to study intuition, imagination, personal experience, and emotion (Pathak & Thapaliya, 2022). By this, the philosophy is suitable to delve into the subjective experiences of migrants, revealing how their unique circumstances, such as displacement and cultural shifts, influence their fertility choices in qualitative approach. This show that postmodernism do not fit well when studying relationships between variables or testing hypothesis.

Briefly, by exploring these assumptions regarding the ontology, axiology and epistemology; the study noted that positivism was suitable for quantitative research methodology. Pragmatic paradigm can also be used in health and epidemiology research by adopting mixed-method (both qualitative and quantitative). However, it is clear that when adopting interpretivism, criticalism, and postmodernism paradigms qualitative approach is more appropriate.

2. Materials and Methods

This section reveals how the method can be selected following the study problem, objective and paradigm. The study problem, paradigm, methodology, researcher training and resource availability all play a role in the method selection process (Okesina, 2020). There are three fundamental research methods, namely; qualitative, quantitative and mixed-method.

The qualitative approach focuses on exploring and understanding existing phenomenon such as; feelings, perception, experience, motivation, and behaviours of individuals. It uses a purposive technique—relying on a smaller sample size (a non-probabilistic technique) to discover these phenomena and generate meaning out of them. Despite the fact that migrants exhibit diverse feelings, experience, enthusiasm towards their fertility choices, a study might not be carried out to discover existing concepts. The qualitative method also strategically uses the inductive procedure and engages research participants through in-depth interviews, focus group discussion and observations. Deductive method may also be used in qualitative studies if the purpose is to validate or confirm an existing theory (Saunders et al., 2016, 2019, 2023). Nonetheless, a study aim at testing hypothesis may not intended to test the validity of an existing knowledge. As this approached intuitively descended from the interpretivism, criticalism and postmodernism paradigms, its findings cannot be generalized.

Furthermore, the quantitative method focuses on describing the relationship between an independent variable and dependent variable. Therefore, align well with quantitative method. Quantitative approach relies on probability random sampling strategy (using a larger sample size) to obtain numerical data through structured questionnaire and analyse these data using statistical approach. Strategically, the quantitative method mainly uses the deductive method to test hypothesis, drawn conclusions and make generalization of the findings. It can be recall that, the quantitative method is a descendant of the positivism paradigm hence produces contextual knowledge independently.

At last, the mixed-method utilizes both quantitative and qualitative approaches to evaluate numerical observations and explore them. This an indication that, the mixed-method can use both approaches to examine the relationship between migration and fertility. Though, this approach allows for a comprehensive understanding by quantifying fertility rates among migrants while exploring cultural, social, and economic factors that influence reproductive behaviors through interviews or focus groups discussion; it can be used depending on the aim of the research

3. Conclusion

It is evident that all the five paradigms discussed can provide valuable insights on how migration influences migrant's fertility behaviour, as each paradigms stresses varied dimensions of human experiences and settings. Recognizing these paradigms allows novice researchers to approach the topic from diverse epistemological and methodological perspectives, thereby elevating the understanding of migration–fertility dynamics. This highlights the importance of aligning one's research philosophy with the study objectives and methodological choices, an aspect postgraduate students should be particularly mindful of when designing their studies.

Moreover, while qualitative approaches may help uncover the meanings, motivations, and cultural contexts shaping reproductive decisions among migrants, quantitative methods are especially useful when attempting to disentangle the complex relationship between migration and fertility. Quantitative designs allow for the measurement of causal relationships, comparison across groups, and generalization of findings. Therefore, the integration of both philosophical awareness and methodological rigor is essential for producing comprehensive and credible evidence on research like the influence of migration on fertility behaviour.

4. Recommendation

It is therefore, recommended that future research on migration and fertility should adopt a multidisciplinary and philosophically grounded approach. Again, postgraduate students and researchers should clearly articulate their research paradigms and ensure that their methodological choices align with these underlying philosophies. While quantitative methods are effective in examining relationships and patterns, integrating qualitative insights can help capture the social and cultural dimensions of migrants' fertility behaviour. More also, capacity-building workshops and mentorship programs should be organized within academic institutions to strengthen students' understanding of research paradigms, philosophical assumptions, and methodological precision. Such efforts will enhance the quality, depth, and contextual relevance of studies in diverse settings of postgraduate's research.

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