

Research Methods in Health, Outdoor Education & Physical Literacy: BMOE7008

Reflective paper

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The reflective process

When reflecting on the experience of planning and carrying out the research, I have chosen to follow Schon's model of reflective practice (1991), which involves reflecting as the experience is happening, as well as reflecting on the event after it happened. I have previously used this approach whilst a dietetic student. Reflecting on both the practical and mental aspects of research can help to consider different perspectives and has been identified as a "crucial cognitive practice in the research field" (Mortari, 2015).

Introduction to research topic

My initial interest in the topic for this research project was borne from speaking with personal trainers at the gym I attend, as well as having observed personal trainers and health coaches on web-based apps, such as Instagram and Tik Tock, providing nutritional advice to their followers. When I began to research the topic further, I came across a study linking the health promotion aspect of the role of a personal trainer, with the adoption of preventative health behaviours to reduce the risk of non-communicable diseases, such as type 2 diabetes and cardiovascular disease (Oprescu, et al., 2012). In my professional capacity, I work as a type 2 diabetes dietitian, so this area of research was of particular interest to me due to sports nutrition crossing over with diabetes prevention.

Though personal trainers were identified as being well placed to play in a role in the promotion of a healthy lifestyle, Barnes, et al., (2019) found that client expectations in terms of nutrition advice from personal trainers extended beyond the scope of practice and nutrition education of personal trainers. Given the scope of influence of personal trainers on the exercise and nutrition habits of their clients, I was interested to speak with personal trainers in Cardiff to see if their experiences and nutritional knowledge and education was similar to previous research conducted in this area. In addition to the aforementioned public health angle of the research, I was also hopeful that finding out what clients requested from personal trainers in relation to nutrition advice could inform my future professional practice in sports nutrition, both from the standpoint of presenting to personal trainers to further their nutrition education, and also in putting together client resources.

Reflection on research design and data collection

Though I have carried out a research project previously, this current module is the first occasion on which I have thoroughly read literature pertaining to research methods. I initially found the language and thought process overwhelming, and was unsure where the research I was hoping to carry out would fall in terms of epistemology and ontology. I feel my understanding and implementation of research methods in practice is still a work in progress, though understanding and implementing sound research methods principles is key to interpreting existing research and conducting a sound, reliable and ethical research project. Indeed, Moon and Blackman (2014) comment that "social research can be meaningfully and appropriately interpreted only when the reader has a sufficient understanding of the philosophical principles".

When reflecting on the ontological basis for research, I chose the relativism paradigm as I was seeking to explore the reality created by the mind of the participants, which is a product of their consciousness (Moon & Blackman, 2014). Epistemologically, I chose a constructivist paradigm as I wanted to gain a deep understanding of individual personal trainer experiences (Pilarska, 2021). Mill, et al., (2006) comment that the researcher being involved and potentially attaching their values to research process is a potential drawback of this paradigm. Indeed, on reflection, I can identify that I went in to the interview process with a slight pre-conceived notion of what the responses to interview questions may be, which was largely obtained from conversations I had had with personal trainer friends before the research topic was chosen and the interviews conducted, as well as findings from previous studies. To help minimise the impact of this on the credibility of research, I sought to exercise reflexivity, which will be discussed in further detail later on in this reflective paper.

Qualitative data collected through semi-structured interviews was chosen as the means by which to gather data as the research objectives sought to understand individual personal trainer experiences. This approach was chosen as qualitative research methods are not constrained to one epistemological position, and are concerned with the "quality and texture" of experience (Willig, 2001). I wanted to obtain descriptive

data from qualitative research which I could group into themes, allowing for exploration into participant thoughts and the opportunity to identify any shared experiences or opinions between participants (Davies & Hughes, 2014). Due to the small number of participants, I felt I was unable to gain a full experience of thematic analysis of qualitative data. I had planned to use the NVIVO software to group together and evaluate themes from interviews, however, due to the small sample size and brevity of two of the interviews (two interviews lasted approximately six minutes and the third interview approximately 17 minutes), I was able to analyse the data using an Excel spreadsheet to group quotes together. In doing so, I realised that my personal preference for data collection analysis tends more towards a quantitative approach. When carrying out quantitative research as part of my undergraduate degree, I found I worked well with quantitative data as this could be easily coded and numerically represented (Blaxter, 2010). As a result of this, when considering potential dissertation topics, I will be mindful to factor the theoretical and conceptual basis of the research and how the data would be collected and analysed into my decision.

On reflection, the implementation of the method, particularly the organisation of semi-structured interviews, was more challenging than I had anticipated and resulted in a smaller sample size of participants. I had not appreciated the extent to which choosing a solely qualitative approach to data collection would necessitate a reliance on participant availability and reliability. Three participants were unavailable when they said they would be able to participate in the interview, and one interview had to be rescheduled due to changes to participant availability. These events adversely impacted the timescale within which I had planned to collect data. I had not factored this in to my planned timeframe for research collection, and had naively assumed that setting up interviews would be a straightforward process. I appreciate that this can vary on a person-by-person basis, and that my experience is not reflective of all qualitative data collection methods. If or when I carry out further interviews as part of a research project in the future, I will allow a generous amount of time for data collection and factor potential setbacks such as changes to participant availability into the planning process.

I am aware that the sample size of three participants will adversely impact the external validity of my findings, and is something I would seek to remedy should I carry out a similar piece of research in the future. A larger sample size would increase external validity of the research findings (Davies & Hughes, 2014), as well as allowing for comparisons in experiences and opinions between participants in different locations, participants of different genders and age ranges. Though the sample size of participants was small, I feel it will help to build on my understanding of what clients wish to know in terms of nutrition advice from personal trainers, which will hopefully help inform my professional practice, as discussed above.

Participants were chosen from individuals I knew for convenience and ease, rather than random sampling. Opportunistic sampling was chosen due to the time constraints of the research project, though on reflection it is acknowledged that a downside to the convenience of this approach is an increased chance of selection bias (Jones & Attia, 2017). A random sampling approach could decrease the likelihood of selection bias occurring as the research findings would be representative of the wider population, rather than just the sub-section of the population known to the researcher (Davies & Hughes, 2014).

The time constraints within which data needed to be collected, analysed, and presented in a poster were something that I struggled with. Reflecting on the process helped me identify that I could have been more assertive when organising interviews to confirm times. I made multiple trips to the gym, when I could have arranged more than one interview on a certain day if I had been more organised and confident in requesting participant availability. I am aware that for the MSc dissertation, the timeframe is longer, but conscious that a greater amount of data is required for a larger scale project, and that sufficient time must be factored in for data analysis and write up. To overcome any setbacks or surprises in terms of the timeframe, I am plan to utilise a Gant chart to plan out my timeline, factoring in a margin of error, and to stick to this firmly. The issues I encountered when trying to organise interviews within a relatively short timeframe were also a factor in my decision to likely consider a quantitative or mixed methods approach to future research.

Though I found the organisation of interviews stressful, and did not manage to achieve the sample size of participants I had initially aimed for, I did enjoy the actual data collection process. I enjoy talking to others on the topic of nutrition, and hearing views and opinions from others, discussing recent findings and hearing what has and has not worked for others in terms of nutritional approaches, both in terms of sporting performance and general health and wellbeing.

An alternative data collection approach to face-to-face interviews could have been asking participants to fill out an online questionnaire, and carrying out statistical analysis of the quantitative data collected using SPSS. A benefit of an online questionnaire would have been that they have no geographical limitations, unlike face-to-face interviews (Greetham, 2019). This could have facilitated being able to reach a broader range of participants, and in turn gaining a larger sample size for the research to increase external validity of the findings (Denscombe, 2014).

The analysis of the qualitative data gathered was carried out once the interviews have been transcribed. Transcribing the interviews myself meant that I was already familiar with the participant responses, which made identifying common themes and grouping responses together easier. It is acknowledged there is an element of subjectivity to both data collection and analysis when carried out by one researcher. Hammersley & Atkinson (1995) comment that the “researcher is the instrument” when carrying out qualitative research, and that subjectivity is an inherent part of this which cannot be completely avoided.

To minimise researcher bias and my attaching meaning to participant responses, I summarised back to the participants at the end of each answer to confirm I had correctly understood their response and to minimise the likelihood of misinterpreting their responses when analysing the data. However, during the transcription process, when listening to some of the comments and additional questions I asked participants, I noticed on more than one occasion that I asked leading questions. This was unintentional on my part, and something I did not consciously realise I was doing at the time. Should I conduct interviews in future, I would be conscious of not talking too much, becoming comfortable with silence, and trying to solely reflect and summarise what the participants had said, rather than asking further questions which may lead them down a specific line of thinking.

When transcribing the interviews and carrying out thematic analysis of the data, I became more acutely aware of reflexivity, which necessitates awareness of the influence of the researcher in attributing meanings through the research process (Willig, 2001). Personal reflexivity requires the researcher to acknowledge their own role in the research, and I was conscious of trying to minimise how my own experiences and preconceptions impacted my approach to research.

I had not carried out interviews in this manner before, and noticed that during the interviews I felt nervous and a little self-conscious, potentially as I wanted the participants to have a positive experience, and also to come across as both a competent and professional researcher and dietitian. I had not expected this as I carry out 1:1 consultations with patients as part of my professional role on a daily basis, and the participants were known to me before the interviews.

When introducing the background to the study and what we would be discussing during the interview, I sought to create a non-judgemental environment. I was aware that when being interviewed by health professionals, a potential power imbalance can exist between researcher and participant (Draper & Swift, 2010) and wanted to minimise the chance of this occurring. The interviewees knew I worked as a dietitian, and I was conscious of wanting to reduce the chance of any feelings they may have of their answers being scrutinised as a result of my background in nutrition and dietetics. I tried to do this by explaining the research aims and objectives, and that I was interested in their individual experiences rather than assessing their level of knowledge.

Reflection on ethical considerations

Adherence to ethics is paramount when conducting research, both in terms of upholding research validity and ensuring participants are exposed to no harm throughout the research process (BERA, 2018). I was conscious to seek informed consent from participants before conducting the interview process to ensure I adhered to the university's research ethics and integrity code of practice. When reflecting on how I conducted the research for this project, I feel I acted in accordance with BERA's ethical guidelines (2018) in treating participants with respect, and informed them that if they wished to discuss anything pertaining with nutrition to me following the interview, then we could do so to address any questions that may have arisen for participants throughout the interview process. One participant said he would be keen to “debrief” following the interview, and a date for this is in the process of being arranged.

Effect on future research projects and professional practice

As discussed above, an element of this research project that I struggled with was participant availability and conducting, transcribing, and analysing interviews within a set timeframe. In light of this, a mixed methods approach is something I would consider for a future research project, as opposed to solely qualitative data collection. Mixed methods combines both quantitative and qualitative data collection, and can provide a “richer understanding of the phenomenon being studied” (Baran, 2020).

To conclude this critical reflection on the research process, in hindsight, I would be hesitant about choosing a solely qualitative approach to data collection for future research projects. Though I enjoyed the more person centric approach to collecting data, the time involved in setting up the interviews surpassed what I had factored in to my projected timeline for the project, and led to smaller than anticipated sample size.

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