Chapter 8

Conclusions, limitations and recommendations

This final chapter begins by detailing the conclusions drawn from the research related to a holistic approach to weight management. The limitations and strengths of the research are then presented, followed by the implications and recommendations for education, practice and research. Finally, strategies to disseminate the research are proposed. Conclusions about the applicability of the conceptual framework for the holistic approach to weight management are drawn followed by conclusions about the feasibility of the approach to PNs in the context of primary care.

8.1 Conclusions

In order to ascertain if the aims and objectives, outlined in chapter 2, have been achieved they are now revisited. Once this has been established a brief examination is undertaken to compare weight outcomes in relation to other UK primary care studies.

8.1.1 Aims and objectives revisited

At the outset, the overall aim of the study was to develop and evaluate a holistic approach to obesity management for primary care nurses and obese individuals in their care. A two phase study was carried out with the initial exploratory phase providing data to inform the primary care intervention. The objectives of each phase are considered separately.
8.1.1.1 The objectives of the exploratory phase

a) *Identify patterns of behaviour and explore how they impact on weight management*

The relationship between weight beliefs, expectations, physical, social and emotional well-being and weight management was established. Their impact on weight management was achieved by retrospectively dividing the individuals into three groups by weight change. Fully achieving this objective may have been compromised by not collecting data on actual food intake due to efforts to avoid the ‘diet culture’. However, that omission was rectified in the intervention phase by incorporating factual information from existing literature highlighted in the theoretical framework.

b) *Ascertain the association of physical well-being and weight management*

This objective provided evidence of the high level of co-morbid diseases suffered by those who are obese. Individuals identified a number of symptoms but in particular poor sleep, breathlessness and body pain which all impinged on their ability to be active. Physical activity levels differed between those who gained and lost weight. However, it was also highlighted that assessment of activity levels should include all types of inactivity as well as activity.

c) *Explore the role of perceived social support on weight management*

The perception of social support, particularly from friends and family was an important aspect of weight change. Individuals who had the greatest support lost most weight and were more likely to be active. However, for some who lost weight, the level of perceived support from their partner actually decreased. This may reflect that making changes can disturb the dynamics of a relationship.
d) Detect the range of emotions experienced by obese individuals and the perceived impact of them on weight management

Obese individuals often displayed negative feelings such as guilt, anger, loneliness and boredom, often related to anxiety and depression. Weight gain worsened these feelings but weight loss reduced them and also increased confidence and pride.

e) Examine the beliefs and expectations of obese individuals with regard to weight management

Most individuals, although indicating that controlling weight was not easy, recognised that they were the only ones who could control it and if they gained weight it was their own fault. In relation to weight change some individuals viewed their co-morbidities as limiting their control. Nearly all individuals believed that having support was important. Often the expectations of weight were unrealistic and created frustration.

8.1.1.2 Objectives of the intervention phase

a) Develop a person centred approach for nurses and obese individuals to work within a mutually agreed partnership

The results of the exploratory phase, which was guided by the theoretical framework, were shown to be relevant to the development of the new participatory, person centred holistic approach. The design of the materials encouraged both PNs and individuals to work in partnership on a broad range of issues affecting weight management.
b) *Introduce and evaluate the approach for acceptability and utility*

The introduction of the holistic approach into primary care was fraught with
difficulties primarily due to the restricted time span. Most PNs felt that obesity
management was part of their role and were looking for help in fulfilling that
function. Accessing the education and support provided was difficult for some PNs
due to internal constraints within the practice setting. The short recruitment time for
the intervention phase reduced the number of individuals in the study and perhaps
influenced the drop out rate.

Although the philosophy underpinning the holistic approach did not appear to be
universally accepted, most PNs found it applicable to their practice. The materials
provided a structure for practice and at the same time allowed flexibility in how
individual PNs worked. The difficulty of acquiring in depth information from
individuals within the constraints of traditional methods was often overcome using
the holistic approach. However, some PNs appeared to find it difficult to use the
materials in a broader way and applied traditional narrower approaches to
intervention. The utility of the approach was generally viewed positively but the
rigidity of the appointment system was regarded as restrictive in relation to overall
outcomes.

c) *Determine the level of individual satisfaction with the approach* Most individuals
expressed their satisfaction with this approach. They appreciated the shift of
emphasis away from the ‘diet culture’ with it’s negative connotations to a more
positive perspective. Concerns were occasionally expressed about the awareness
raised by the ‘weight management map’ but generally this awareness was used
positively. The majority of individuals were satisfied with both the materials and the approach to partnership working.

### 8.1.2 The applicability of the conceptual framework

This study highlighted the complexity of obesity management and the need to develop new interventions that were deemed holistic in nature. Identifying areas often examined separately in the research arena but given less prominence in a practice setting appeared to provide a constructive basis for a conceptual framework to aid the development of a holistic approach to weight management as shown in Figure 8.1

![Figure 8.1: Conceptual framework for intervention and outcomes](image)

The conceptual framework used theories from different disciplines, namely medicine, psychology, sociology and nursing to inform the research and, although this was at times difficult to ‘hold together’, it was helpful in guiding and informing the research. It raised the view of how physical, social and emotional aspects in conjunction with
beliefs about weight management may be related. However, additional research on a larger scale is required to confirm these results. A more difficult aspect of the conceptual framework was deciding how to transfer the knowledge into practice, therefore more discussion of the relevance of the two nursing models seems relevant.

The two nursing models of Peplau (1988) and Roper, Logan and Tierney (RLT) (2000) appeared appropriate to combine all these concepts to provide a structure to guide practice for a holistic weight management intervention. Peplau (1988) appeared particularly relevant but Roper, Logan and Tierney (RLT) (2000) may be more controversial. As indicated before, their use was heuristic (Wimpenny 2002).

RLT (2000) provide the structure to guide the identification of the influences on activities of living by incorporating physical, social and emotional factors while Peplau’s therapeutic, goal-directed, interpersonal participatory approach provided the vehicle to implement such change. However, the intention to produce a person-centred approach may have been compromised had the activities of living listed by RLT been used as a checklist type (Reed and Robins 1991). However, at one practice the extended example map, intended for nurses, was used as a checklist resulting in poor outcomes.

The application of Peplau’s theory, which also perceived individuals in a holistic way, provided the means through which PNs could work in partnership with individuals. There were many examples of the relevance of Peplau to weight management where PNs occupied roles of stranger, counsellor, resource person, surrogate and teacher. Sometimes it proved difficult to move on from the role of stranger resulting in the termination of the relationship, perhaps reflecting the challenge of establishing rapport
which requires good communication skills. Peplau (1988) also maintained that cultural stereotyping influences the ability to be empathic, one of the requirements for good communication skills. As communication skills are central to Peplau’s model, implementation of the holistic approach may not have been easy for some PNs. The inability to provide greater support to enhance communication skills was a limitation of this study.

In conclusion, it appears that the conceptual framework was a useful guide for implementing a holistic person centred approach to weight management. The cyclical nature of the conceptual framework appeared to reflect the nature of both behaviour change and obesity management. However, further work is required to refine the conceptual framework for further research in different contexts.

8.1.3 The effectiveness of the holistic approach for PNs

In terms of weight outcomes the holistic approach was effective as 78% of individuals lost weight. It may be that the way in which the approach is implemented makes a difference as of those who gained weight all but two came from the same practice. Practice nurses in primary care appear well placed to implement strategies to address obesity management. However, although they view obesity management as part of their role they feel unsupported both educationally and managerially in the practice setting. Nonetheless, PNs have an important role to play in helping individuals towards better outcomes. A number of key elements related to achieving better outcomes emerged from this study. Firstly, the way PNs interacted with individuals was important. It appears that the manner in which weight management is approached makes a difference to the person. A non judgemental approach facilitated by the use of the ‘weight management map’ helped break down some barriers. Once these barriers dissipated a
partnership between PN and the individual could develop more easily. One of the difficulties for PNs in developing a partnership was the practice of ‘advice giving’. This sometimes hindered the process of getting to know individuals more deeply in terms of addressing the underlying causes of weight difficulties.

PNs who recognised, that obesity management was multifaceted tended to look on obesity management more holistically. That is, were able to acknowledge and work with the interaction between energy intake, energy expenditure, physical, social and emotional well-being, weight control beliefs and weight management.

However, PNs agreed that there was a need to provide longer appointment times, that is, more that the usual 10 minute appointment. Improved results were obtained when, in spite of the confines of the GMS contract, PNs were able to provide consultations of length and frequency according to individual needs. Nonetheless, it seems that although increasing the length of appointment times would be beneficial, intervention may focus on advice giving and not be holistic or person-centred. The service implications of enhanced appointment times and health improvements, requires further economic analysis and research.

### 8.1.4 Support for implementing the holistic approach

The context in which nurses practised had restrictions for them all when it came to professional development. The lack of education may have compromised the outcomes and the way in which some PNs implemented the holistic approach. This conclusion was reached as those who were able to have most contact with the researcher and used all the educational materials supplied and suggested, had the best outcomes. Outreach
visits were welcomed by the PNs but also sharing a consultation with them had the most benefit. It gave the PNs more confidence and the outcome for individuals improved.

Had ‘champions’ not emerged through the recruitment process this study would have been seriously compromised. These champions were influential in facilitating the study by providing a link to the PNs. Nonetheless, implementing the holistic approach was not easily achieved as the time available for education was very limited and further restricted by the geographical spread of the PNs. Although these approaches were beneficial further development should perhaps include a one day workshop. Other means of education should also be explored and evaluated.

8.2 The utility of the materials provided for the holistic approach

The materials used in the consultations were viewed by both PNs and individuals as relevant to practice.

8.2.1 Booklet for individuals

In general, the booklet ‘My Personal Approach to Weight Management’ appeared useful in providing a structure to guide weight management. In particular, the unique ‘Weight Management Map’ played a key role.

8.2.1 1 Weight Management Map

The ‘Weight Management Map’ appeared central to the holistic approach in a number of ways. It was holistic in that it helped focus the minds of some individuals on physical, social and emotional aspects and how they managed their weight. Providing
space to document such thoughts on paper, aided by the mind map concept, was clearly a useful exercise. Furthermore, the ‘Weight Management Map’ also helped individuals become aware of links between physical, social and emotional influences on their weight management thereby raising self-awareness. This sometimes raised issues, for example, being a good role model and bereavement issues that may not usually be identified as affecting weight management. Identifying these individualised issues enabled relevant action plans to be formulated reflecting the importance of taking a holistic, person centred approach. Therefore, the outcomes of this pilot study suggest that the flexible structure of the ‘Weight Management Map’ appears to be a useful tool but requires further research.

The ‘Weight Management Map’ laid the foundation to encourage individuals, to be proactive in their care and take ownership of their weight management had some success. In addition to aiding some individuals in self-reflection and self-awareness, the materials, in conjunction with nurse consultations, encouraged them to take responsibility for self-management. Many PNs felt that the individual booklets gave weight management credence, however, the booklets would benefit from further refinement and research.

The mind map design of the ‘Weight Management Map’ was useful for both nurse and individual by challenging individuals in a non judgemental way. However, trying to continue the mind map format for the goal setting section called ‘My Action Plan’ was less successful and an obvious limitation. As a result, ‘My Action Plan’ was redesigned at the end of this study (APPENDIX 18). However, this still requires further development.
8.2.1.2 PN Booklet and practical materials

The booklet for PNs was well received and aided changes in practice even for those PNs who did not recruit individuals. It appeared to help some PNs view obesity more holistically. In particular, the inclusion of case studies was popular as they provided real scenarios to which PNs could relate. Further development of the booklets is required, particularly taking into account enhancement of the visual aspects of printed materials.

The box of practical tools (APPENDIX 9) to aid practice, such as height and weight conversion charts, were welcomed by PNs. Although similar tools do exist, they are limited in scope. As the general population becomes heavier, there will be a greater need for more relevant tools in the future. Therefore, practical tools for intervention are required and need further development.

Applying the conceptual framework to the booklets for individuals to use in practice was no easy task. The difficulties were in bringing all the strands together and applying them in such a way as to maintain the holistic view but still produce relevant materials, which were straightforward to use in practice.

8.3 Overall conclusions

This pilot study of the holistic approach to weight management was effective in terms of weight loss over a three month period for 78% of individuals recruited. However, further work is required. In practice the conceptual framework allowed the complexities of obesity to be addressed while the underlying philosophy of holism provided a channel for the development of the nurse/individual partnership. This
combined the science with the art of nursing. The holistic approach, unlike the paternalistic approach, does appear to promote behaviour change, self-management and facilitate wellbeing. Since a number of nurses wanted to continue using the holistic approach to weight management, after completion of the study, it was concluded that this approach seemed to fulfil their future requirements. It should therefore, following further refinement and research be recommended as a way forward in obesity management where the individual, and where appropriate, in conjunction with the nurse, explores the cause behind the weight gain.

This study achieved the aims and objectives initially set out, and has demonstrated that the holistic, person centred approach to weight management provides an evidence-based vehicle for both the art and science of nursing. Furthermore, the intervention fulfills the recommendations of the NICE (2006) guideline in that it:

- Helps individuals identify barriers to good weight management
- Includes behaviour change strategies
- Provides written goals and actions

The intervention also incorporates the Department of Health (2006) “Self Care” recommendations in that it:

- Puts ‘patients’ at the centre
- fosters partnership working
- Encourages self-management
- Encourages greater confidence and a sense of control
- Is multicomponent
8.4 Methodological issues and limitations

There were a number of limitations in both the exploratory and intervention phases of this study. Some of these limitations may have been avoided had there been fewer financial and time constraints imposed on the study.

8.4.1 Limitations of the exploratory phase

a) The participants in the exploratory and intervention phases differed in context. The exploratory phase took place at an outpatient hospital clinic while the intervention phase was implemented in primary care. These differing contexts are a limitation in terms of relevance of the results from the exploratory phase to those in the intervention phase. However, this limitation was lessened by the fact that both samples had experience of primary care. Furthermore, they were similar in demographic and co-morbidity detail reflecting that PNs in the areas where the research was carried out have no onward referral process to a specialist clinic and have to deal with the obesity epidemic themselves.

b) Another limitation of data collection was that the researcher was part of the multidisciplinary team where this phase was carried out. However, no intervention was undertaken by the researcher and contact with individuals was minimised by providing self complete questionnaires.

c) Data analysis was compromised by having to omit visit two data from the three visits over six months. This information would have given insight into differences between visits one and two, and two and three thus providing more robust data on the expectations of weight loss with weight change. As life experiences affect
weight management on a continuum, this limitations meant that these outcomes could not be observed in the exploratory phase.

d) Statistical significance of the results was compromised by the small numbers of individuals recruited for the exploratory phase

8.4.2 Limitations of the intervention phase

a) The literature review could have been carried out more systematically but the key areas were reviewed and reflect the complexity of weight management.

b) Due to time restrictions individuals were in the study for a very limited duration. Since weight change varies over time and the holistic approach is intended to produce more permanent life changes a much longer study would have given more validity to the findings. A picture of longer term outcomes was therefore unobtainable.

c) Due to the size of the study no distinction was made between different nurses, for example, between a practice nurse and nurse practitioner. Therefore, the level of expertise was not taken into account. As the type of previous nurse education was found to impact on the PN approach to weight management the degree to which the educational content of the holistic approach influenced them could not be definitively ascertained.

d) Apart from field notes detailing the occasional introduction of the researcher to a general practitioner, little was gathered on their perspective of obesity management
in practice. This limitation compromised the data on the contextual influences on PNs ability to implement obesity management.

e) Data collected from individuals was self reported and from PNs through interviews. This raises questions about reliability (Miller 2001; Polit and Beck 2006). Although other means of data collection may have reduced this risk, such as repeat interviews with PNs the time constraints prohibited this. The addition of interviews with individuals would have provided far greater insight into their perspective of the intervention but again time and resource constraints prohibited this.

f) Although the researcher was aware of ‘bracketing’ (Miles and Huberman 1994; Parahoo 2006) it was inevitable that the research process including data analysis was influenced by the researcher in some way. This influence was therefore a further limitation.

g) Due to the overall approach used it can be difficult to separate out the various elements contributing to the outcomes. The researcher, educational approach and materials were combined within the research approach so no attempt was made to separate and assess. It could be argued that doing so may have resulted in losing some of the fundamental nature of the intervention (Hawe et al. 2004). Nevertheless, the question remains of the extent to which the ‘researcher’ had influence over the outcomes achieved. Although the researcher was distanced from the intervention in that PNs carried out the implementation and there were hard outcomes in terms of weight loss, the data on the utility of the approach may have
been influenced by the relationship between the researcher and PNs. Therefore, this may have been a limitation.

8.5 Implications and recommendations for practice

Nurses identified the lack of structured approaches for obesity management in practice and were seeking new ways forward. The holistic approach to weight management has implications for nursing practice. It would involve a change of approach for all nurses, some more than others, depending on their world view. Understanding the influences of physical, social and emotional factors on weight management may help PNs to view holistic care as being advantageous. However, those PNs who are used to telling individuals ‘what to do’ may find it difficult to relinquish control and involve individuals in decision-making through partnership working. Therefore, professional and practice development is necessary for PNs to enable them to develop both knowledge about obesity and skills to practice the holistic approach to weight management.

The nature of the holistic approach means that nurses have to develop a broader view of obesity and how it affects individuals. Nurses also need an awareness of their own reactions to individuals with obesity and be able to address any prejudices they may harbour. Furthermore, taking a person centred approach demands that communication skills are a key element of management, particularly in addressing emotional issues. For practice, the implication is that nurses need, not only the skills to deal with emotional issues, but also a willingness to do so.
The novel holistic approach to weight management showed promise regardless of the restrictions on practice. If more time was allowed for initial consultations it may prove more beneficial and lead to improved outcomes in the long term. Further research on a larger scale which includes a health economic assessment as well as long term outcomes is required to ascertain the efficacy of the holistic approach.

8.6 Recommendations for continuing professional development for nurses

- Nurse education for obesity management requires development from a nursing perspective
- Beliefs and attitudes about obesity and those who are obese should be addressed in nurse education
- Appropriate materials incorporating ideas of holism should be made available
- The provision of shared educational materials for nurses and obese individuals to enhance partnership working
- Person centred materials to encourage self-management practices from the perspective of the individual
- The provision of nurse education at different levels to suit various needs
- The development of an accredited diploma comparable to those for other chronic diseases
- A variety of modes of delivery, such as outreach visits, peer coaching and e-learning
- The development of centres of excellence within the primary care setting to act as a resource for other general practices in the area
8.7 Recommendations for further research

- Following refinement, the conceptual framework should be further researched for applicability to obesity management
- Emotional issues would benefit from further exploration of their relevance in weight management
- The utility of the materials require further exploration, in particular the unique weight management map.
- Further research is required to confirm or refute the current findings of the holistic approach to weight management by undertaking larger trials
- Including interviews with participating individuals in future research would provide a greater depth of feedback on the relevance the holistic approach to weight management
- The effect of appointment times and flexibility on outcomes when using the holistic approach could be explored
- There is a need to ascertain the suitability of the holistic approach for different groups, for example by age, gender and various levels of obesity. Further areas of research interest would be the applicability of the approach for those who have different levels of literacy skills and various ethnic groups
- The holistic approach could be researched with different professional groups in various contexts, for example, physiotherapists and community pharmacists
- Research should be undertaken into different ways of providing educational support for obesity management for nurses in primary care

8.8 Dissemination Strategies

Finally, it is proposed to disseminate the findings of this research by:
• publishing articles in nursing journals
• presenting conference papers
• provide a summary of the research to colleagues
• collaborate with other researchers to develop obesity strategies
• collaborate with educational institutions to develop obesity management education programmes and e-learning training materials