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Evaluating the Role of Nurse Practitioners in the Management of Obesity

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Abstract: The World Health Organisation defines overweight and obesity as an abnormal accumulation of fat that can significantly present a risk to an individual's health. Body mass index (BMI) on the other hand is the method used to estimate overweight in individuals which is calculated using a person's weight (kilograms) divided by the square root of the height. BMI above 30 is defined as obese and BMI between 25 and 29 is defined as overweight.The aim of this review was to explore the role of primary nurse practitioners in the management of patients with weight issues and discover the factors influencing obesity management by primary care providers. This is in order toelicit the views, experiences and beliefs of primary care providers while managing over weight patients.Different electronic databases were searched; Cumulative Index to Nursing and Allied Health Literature (CINAHL), Medline, internurse Northampton full text collection@ovid, Pubmed, Web of Science and Psych info. Following the search, a total of 20 papers were found and another 5 were discovered after a hand search of the references. After reading through the abstract and methodology, 8 papers were excluded. The Critical Appraisal Skills Program (CASP) critiquing tool was used to check the suitability of the papers selected. The researcher utilised meta-ethnography in bringing the review together, this was done by collectively analysing the material aggregating the themes within each piece of research in order to develop a new one. Codes were assigned to the main findings identified in each paper and similar codes were grouped to form themes.The findings from this review have revealed that obesity is more of a social problem rather than a medical one and has therefore called into question the rationale for a whole scale management of obesity in PHC settings. However, they reasoned that the role of clinicians is to raise the issue and not manage the problem themselves. The factors identified in this review has the big influences on staff handling of obesity such as lack of time, lack of motivation and lack of clear cut guidelines. The author suggests that primary care setting should make the necessary provisions such that staff would have enough time to carry out the needed action for weight management.

Keywords: Nurses, obesity, obesity management and prevention, roles, doctors, General practitioners, experiences

INTRODUCTION

Obesity is one of the major health challenges of the 21st century. In virtually all nations of the world the incidence of obesity is rising to dangerous levels. In 2008, there was more than 1.4 billion adults aged 20 years and above who were defined as being overweight (World Health Organisation (WHO), 2013). Globally about 2.8 million people die annually as a result of obesity or overweight. The period between 1998 and 2008 saw an increase in the prevalence of obesity from 5% to 10% and 8% to 14% in men and women respectively (WHO, 2012). The challenges of obesity is being compounded by the high and volatile food prices which has pushed the poor into purchasing cheaper and less nutritious food in order to feed their families (World Bank, 2013).

Obesity is also contributing to the current world wide epidemic of chronic diseases because of its association with conditions such as type-two diabetes, cancers and cardiovascular diseases (National Obesity Observatory). The WHO expects the number of patients with diabetes globally to increase from 143 million in 1997 to 300 million people in 2025 due to diet and lifestyle factors (Seidell, 1995). Within the United Kingdom alone, 6.8% of all deaths are associated with obesity (NHS, 2010). It constitutes about 500 million pounds to treatment cost of the NHS and 2 billion pounds to the wider economy (National Audit Office, 2001).With more than half of the general population visiting their GPs annually, primary care is expected to play a key role in tackling obesity (Bourn, 2011). The need to harmonise the views and experiences of the professionals who are attending to these patients on a daily basis so as improve weight management is a major reason why this review is being carried out. An earlier review carried out by Mold and Forbes (2013) explored the views and experiences of both obese people in relation to their health care provision and health care professionals in providing care to health care professionals. Their study utilised both quantitative and qualitative papers and consisted of papers that was centred on both patients and professionals. This review however would be the first to explore the views and experiences of primary care providers using qualitative papers only. This is important because Qualitative methods enable the assessment of interventions and provide theoretical foundations for nursing interventions (Morse, 2006).Whereas previous reviews such as that carried out by Brown and Psarou (2008) that reviewed empirical studies reporting primary care nursing practice in relation to obesity management; have been centred on patients and primary care providers themselves. This study is one of the first to be centred on the providers of care.

BACKGROUND

According to The Health and Social Care Information Centre (2013), the percentage of obese persons within the United Kingdom in the year 2011 is 24% of all males and

15% of all females. However, 65% of men and 58% of women were defined as overweight. England has the highest incidence of obesity in Europe with 60% of adults and a third of children between 10 and 11 years of age defined as obese or overweight (Department of Health, 2011). The incidence raised three fold between 1980 and 1998 to 21% in men and 17% in women (National Audit Office, 2001). In comparison to other European nations showed that obesity only increased in the range of between 10% and 40% in the same period (Brown, 2000). The World Health Organisation defines overweight and obesity as an abnormal accumulation of fat that can significantly present a risk to an individual's Health (WHO, 2013). Body mass index (BMI) is the method used to measure and it is calculated by a person's weight (kilograms) divided by the square root of his or her height. BMI above 30 is defined as obese and BMI between 25 and 29 is defined as overweight (WHO, 2013).

However, waist measurement which is a good indicator for the distribution of body fat is used alongside BMI to determine an individual health risks (NICE, 2006). For men waist circumference of less than 94cm, 94- 102cm and more than 102cm is considered low, high and very high respectively where as in women waist circumference of less than 80cm, 80- 88cm and above 88cm is considered low, high and very high respectively (NICE, 2006). Children and teenagers weight status cannot be determined with the aid of BMI because the age and sex of either of them go a long way in determining the BMI, therefore, the United Kingdom 1990 BMI reference chart is used to determine the weight status of a child (Department of Health, 2011)

NICE guidelines 2011 suggest that dietary changes and exercise supported by behaviour modification should be the first line of treatment for overweight or obese patients (NICE, 2011) health professionals while engaging with patients must stress that even the least possible reduction in caloric intake or increase in physical activity can have a considerable effect on the health of the individual (Bennett, 2002). It is rare to find patients who are not aware of what they should eat or not eat in order to remain healthy. The primary care team emphasis therefore should be on increasing the patient's consciousness of food labelling and encouraging him/ her on how to arrive at the 600 calories daily diet recommended by NICE (Bennett, 2002). Primary care is essentially first level universal health care with a specific emphasis on prevention and health promotion (Starfied, 1998). It is important for weight management because it is the first point of call for persons seeking help (NAO, 2001). Brooker and Waugh (2007) identified the members of the primary care team as: Doctors, practice nurses, health visitors, opticians and pharmacists. Within Great Britain, there are three groups of nurses involved in primary care: Health visitors who tend to focus on families with young children, district or community nurses who tend to focus on older population requiring nursing care at home and practice nurses who do have a prevention and management role with adults (Brown and Psarou, 2007).

Brown *et al.,* (2007) conducted a study to explore the patterns of clinical practice, beliefs and attitudes of primary care nurses with respect to obesity management. Part of their findings reveal that most nurses think that obesity is an important health issue and see supporting patients with weight management as part of their role. The study would go a step further by seeking to explore the roles collectively of all primary care providers in weight management. Obesity increases the risk of number of health conditions including hypertension, adverse lipid concentrations and type 2-diabetes (Ogden *et al.,* 2012). The Framingham study showed an independent association between coronary heart disease and being 30% overweight. 75% of all cases of hypertension can also be traceable to obesity (Krauss *et al.,* 1998). Obesity causes an increase in the level of low density lipoprotein and a decrease in high density lipoproteins, for this factor it is strongly associated with advanced atherosclerosis (NHS, 2010). Furthermore, Type 2 diabetes has the strongest association with obesity (National Audit Office, 2001). A BMI greater than 30 is five times more likely to develop type 2 diabetes when compared to a BMI of 25 (Jones, 2000). Chiquette and Chilton (2002) infer that for every kilogram of weight gained, there is a 9% chance of an increased risk to type 2-diabetes. Finally, the connection between overweight and cancers has not been defined but research has suggested that cancers such as breast, endometrial, uterus and cervix are associated with an increase in obesity, however, there is a threefold increased risk for colonic cancer as a result of obesity (National Audit Office, 2001).

REVIEW QUESTIONS

a. What are the roles of primary care providers in the management of patients with weight issues?
b. What are the issues that are influencing obesity management by PHC providers?
c. What are the views, experiences and beliefs of primary care providers while managing overweight patients?

METHOD

Search strategy and paper selection:

The following electronic databases were searched; Cumulative Index to Nursing and Allied Health Literature (CINAHL), Medline, internurse Northampton full text collection@ovid, Pubmed, Web of Science and Psychinfo. After a systematic search of the data base a total of 20 papers were found. Another 5 were discovered after a hand search of the references. After reading through the abstract and methodology, 8 papers were excluded. The researcher used the Critical Appraisal Skills Program (CASP) critiquing tool to check the suitability of the papers selected. The researcher utilised meta-ethnography in bringing the review together, this was done by collectively analysing the material aggregating the themes within each piece of research in order to develop a new one (Noblit and Hare, 1988). Codes were assigned to the main findings identified in each paper and similar codes were grouped to form themes.

FINDINGS

Hansson *et al.,* (2011), Epstein and Ogden (2005), Mercier and Tessier (2001), Heintze*et al.,* (2011) and Gunther *et al.,* (2012) explored the issue of whose role it is to manage weight with various findings being observed. The findings

from some studies (Hansson *et al.,* 2011; Messier and Tessier, 2001) concluded that there is disagreement amongst professionals on whose role it is to manage patients with weight issues. There is also a disagreement between professionals and patients on whose duty it is to treat obesity. Other issues identified are the presence of a role conflict between professionals and patients. There is also the argument about whether or not obesity is medical problem that should be dealt with by the PHC team. Hansson *et al.,* (2011) found that not all members of the primary health care team believe that managing patients with overweight patients is their responsibility. While most staff conceded that their primary role is to treat diseases and that overweight and obesity were conditions that carried an element of risk for diseases such as diabetes, therefore it was more appropriate for them to intervene when there is the presence of disease as well as obesity. Doctors however, were of the view that clients with weight issues should be managed by other members of the PHC team rather than them.

Hanson *et al.,* (2011), Messier and Tessier (2001) as well as Gunther *et al.,* (2012) supported the fact that lack of time and motivation as well as lack of clear cut guidelines to enhance weight management practices were major contributory factors identified by PHC providers that influence weight management practices. Patton (2009) states that the underlying principle of gaining rich in-depth information; should guide the sampling strategy of the qualitative researcher. The selection of participants, settings or units of time must be criterion based, that is certain criteria are applied and the sample is chosen accordingly. The reporting of this study did not explain in detail how the sample for the study was selected. Many participants, the paper said sometimes avoided bringing up the issue because they fear they might not have the time to deal with it subsequently.

Length of waiting list which is partly a reflection of insufficient time for Dieticians was mentioned by Messier and Tessier (2001) as the major contributory factor why Doctors rarely refer patients to dieticians. However, motivation was also identified as a factor that influences obesity management. The issues surrounding motivation can be seen from 2 angles: the aspects of lack of patient motivation and the aspect of lack of practitioner motivation. The papers in this review dealt more with practitioner motivation but patient motivation was also mentioned. Hanson *et al.,* (2011) perceived that weight management was better performed by practitioners with an active interest in it, with a resultant positive patient outcome. Doctors the authors said felt nurses were more enthusiastic about caring for obese patients where as some Directors of Nursing regarded Doctors as not particularly interested.

Nurse practitioners in Messier and Tessier's (2001) discovered that dealing with these patients was frustrating and unrewarding; they were of the view that there was lack of motivation amongst Doctors and all members of the PHC team which is the major reason why Doctors tend to move such patients to them. The practitioners put emphasis on doubt about whether the consultation with the patients would make any difference to the patient's condition. Lack of motivation on the part of the patients was equally identified as one of the factors hindering weight management. Practitioners in the study sought to improve motivation by asking patients to focus on boosting lighter activities on a daily basis: they opined that to focus on more strenuous activities would be counterproductive because patients are not likely to stick to it. This view was supported by Doctors and Nurse practitioners in Messier and Tessier's (2001) study where they acknowledged the need for patients to aim for realistic goals that is likely to be successful and in a longer term strategy.

Finally, lack of clear guidelines for weight management was identified by Hanson *et al.,* (2007) as a major factor that influenced weight management in PHC settings. They base their argument on the fact that the present guidelines do not convey much information about dietary intake which could be attributed to different opinions and contradictions from various schools of thought. As a result, staff found it difficult to offer balanced advice to patients. Messier and Tessier (2001) paper also demonstrated that most doctors and nurses do not use the NICE guidelines to manage patients; their common reason cited for not doing so is lack of time to read it. Amongst staff who had read it, they found the section on the use of appetite suppressants as not being very helpful. The various studies explored the views of doctors, nurses and Directors of nursing in the management of obesity with different focus. The views from Hansson *et al.,* (2011), Heintze*et al.,* (2011), Epstein and Ogden (2005) and Gunther *et al.,* (2012) have all pointed to the direction that obesity management is more of a social issue rather than a medical one and that the responsibility to tackle should lie with the patient rather than the medical team. Even in situations when it is accepted that the medical team should manage these patients. Amongst the medical personnel, the doctors completely disapprove that they should be responsible arguing that it was better for other staff such as nurses to deal with it.

Furthermore, in the opinion of the author, the ability of staff to deal with obesity is affected by the competence of that particular staff. Besides, certain issues that influence the ability of various staff to carry out effective weight management abound. This review have therefore identified empathetic skills, rapport building, sensitivity about obesity and lack of counselling skills as the main issues that are affecting the ability of staff to deal effectively with overweight patients. Moreover, some factors affect the ability of PHC providers to adequately manage overweight patients. The major factors that have been identified through this review process are lack of time, lack of motivation and lack of clear cut guidelines for weight management.

DISCUSSION AND CONCLUSION

The findings from this review have revealed that obesity is more of a social problem rather than a medical one and has therefore called into question the rationale for a whole scale management of obesity in PHC settings. An earlier qualitative study carried out by Walker *et al.,* (2007) had also come up with the same conclusions but their study was centred on children alone and therefore this review cannot be compared with it. However, they reasoned that the role of clinicians is to raise the issue and not manage the problem

themselves. Harvey and Hill (2001) paper have also reported that extremely overweight people should take more responsibility by understanding and acting on the causes of their weight problem. Even the NICE guidelines on weight management recognise that the obesity problem is unlikely to be dealt with in the PHC settings alone (NICE, 2006). In contradiction, the guidelines have made the prevention and management of obesity a priority for PHC settings; this they must achieve by substantial resources that would be dedicated for the course.

This study has also revealed doctors preferences for the management of obesity to be handled by nurses and other PHC providers and not them. This is similar to the findings of the Counterweight Programme Team (2004) which reported that weight management in primary care appears to be brief opportunistic intervention being mainly undertaken by nurse practitioners. In addition, this reviews findings about the issues influences staff competence for obesity management such as sensitivity about weight and lack of counselling skills have also been identified in previous studies. Hankey*et al.,* (2003) study revealed that GPs have knowledge deficit when it comes to weight management where as PNs report feeling unskilled when issues around weight management and dietary advice are being handled. NICE guidelines 2006 also suggest that good communication between professional and patients is a sine qua non for effective weight management. Teachman and Bowell (2001) argue that health professionals had an anti-fat bias on both the implicit negative attitudes and implicit beliefs they used. In comparison to the general population, they had less stigmatised beliefs about overweight people and thought these individuals were less acceptable.

The factors identified in this review has the big influences on staff handling of obesity such as lack of time, lack of motivation and lack of clear cut guidelines. NICE guidelines (2006) suggest that that primary care setting should make the necessary provisions such that staff would have enough time to carry out the needed action for weight management. Although, there is uncertainty amongst General Practitioners and Practice nurses about which intervention is the most effective for the prevention and treatment of obesity. However, there is a general consensus that more information is needed to address the issues of weight (National Audit Office, 2011).

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