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**CHALLENGES IN CARING FOR THE MORBIDLY OBESE:
DIFFERENCES BY PRACTICE SETTING**

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ABSTRACT

Nurses from a variety of practice settings were surveyed for their perception of challenges in caring for morbidly obese patients, barriers to care, and issues involved in providing care.

Specialized equipment was available to the majority of nurses but availability varied by practice setting. Nurses in hospitals were more likely to have access to equipment, while the majority of nurses practicing in community settings reported having no equipment.

Nurses were asked to rate the factors they felt contributed most to obesity. Overall the two top factors were both modifiable: they were behavioral and psychological. There were differences in nurses' perceptions based on practice sites.

The main barriers noted by respondents included special equipment needs, the personality of the patient, and the nurse's attitude. The latter was a more frequent response among in-patient nurses while the patient's personality was recounted most frequently by the nurses in community settings.

These data further point to the significant challenges facing nurses who care for the morbidly obese. In addition, they highlight the importance of the nurse patient interaction as both the nurse's attitude and the personality of the patient are mentioned as barriers. Further research directions are discussed in the report.

Key Words: morbid obesity, obesity, nursing care, barriers, satisfaction, challenges

CHALLENGES IN CARING FOR THE MORBIDLY OBESE: DIFFERENCES BY PRACTICE SETTING

BACKGROUND AND PROBLEM STATEMENT

Obesity is now recognized as a major health problem in the United States. Currently 32% of the U.S. population over the age of 20 is obese and the problem is not limited to adults. Although increases in the prevalence of overweight and obesity have been observed around the world, the United States has the highest prevalence of obesity among the developed nations.¹

The number of hospitalizations in which obesity was noted on admission increased by 112% between the years 1996 and 2004, while the increase for hospitalizations for any condition increased by only approximately 13%.² While obese individuals undergoing weight reduction surgery account for some of these patients, many of them also seek health care for treatment of co-morbidities, such as diabetes, sleep apnea, or orthopedic problems or for matters unrelated to the obesity, such as trauma or childbirth.

The morbidly obese patient presents particular challenges to nurses providing their care. Earlier nursing literature on weight reduction surgeries cautioned nurses to have additional staff available to assist in providing care and to assemble specialized equipment to cope with providing care and transferring a patient with a large body mass.^{3,4} A literature review located no reported studies by nurses to provide empiric evidence of these requirements.

The Bariatric Nursing Consortium, a nursing research group comprised of hospital nurses and faculty members, has conducted several studies building upon challenges identified by nurses who care for morbidly obese clients. A focus group study with nurses was the first study to identify challenges that nurses face in caring for the obese in a variety of acute care settings.⁵

Additional studies of the Consortium focused on staffing needs and safety concerns of hospitalized patients. Its current studies involve skin care, again in the hospitalized patient.

These studies have not expanded their focus beyond patients in the acute care facility. If nurses in hospitals are encountering challenges to providing care, then it would be useful to understand the view of nurses practicing in other settings as well. A broader perspective would enhance understanding of this phenomenon.

The purpose of this study was to determine what nurses practicing across a variety of patient-care settings viewed as the challenges in caring for the morbidly obese patient.

LITERATURE REVIEW

There has been limited nursing research carried out on the particular needs of the morbidly obese patient. Two areas are particularly relevant for this study: nurse staffing and safety of both nurses and patients.

The requirement of increased staff to provide care for the morbidly obese, originally noted in our focus group study, has received only limited additional attention in the literature. In our own subsequent time/motion study nurses were observed caring for 30 morbidly obese patients in selected activities, such as bathing and ambulating. The same observations were made on a comparable group of non-obese patients. Data suggested that the morbidly obese required almost twice as much time and twice as many staff members for their care.^{6,7}

Although a literature review did not reveal further studies of staffing, authors note the requirement that additional personnel be available to assist in caring for the morbidly obese patient.⁸

Patient and nurse safety are critical areas with respect to caring for the morbidly obese. In the focus group study, nurse respondents noted their fear of personal injury and cited this as a reason for not wanting to provide care to this patient group. More recently increased attention has been paid to this area. Humphreys⁹ presented a comprehensive review and discussion of obesity and its effect on risk of injury to both nurses and patients. Several authorities discussed this topic in a roundtable¹⁰ and a "Safe Bariatric Patient Handling Toolkit"¹¹ provides algorithms to assist health care providers in planning safe handling and movement of bariatric patients.

Use of specialized equipment is one approach to enhancing safety for both patient and nurse and several aspects have received consideration in the literature.

Winkelman and Maloney¹² documented the use of various types of resources, including the use of assistive equipment, with obese patients in intensive care units, noting that the more extensive resource use may suggest adverse patient outcomes.

There are numerous advertisements in the public and professional literature extolling the virtues of one type of equipment or another, and equipment is currently available to perform safe transfers of even very large patients, if used according to guidelines. The extent to which nurses use specialized equipment, however, is not well documented. Nurses in the focus group study noted that it

was sometimes easier to simply get about 6 additional people and manually lift the patient. The staffing study was not designed to determine details about the use of the equipment, but it was noted that no patients in the obese group were transferred using specialized equipment.

Manual lifting of patients may be the cause of injuries to nurses as well as patients. This was the specific focus of a position paper by the American Nurses Association. In its "Position Statement on the Elimination of Manual Patient Handling to Prevent Work-Related Musculoskeletal Disorders,"¹³ it urges nurse to make appropriate use of assistive equipment and devices in order to reduce injuries. While this document does not differentiate between obese and non-obese patients, the National Association of Bariatric Nurses issued a position statement¹⁴ in which it supported the ANA position and pointed out the particular importance of safety precautions when caring for the morbidly obese.

We located no reported investigations on challenges that nurses in outpatient or community settings face or how they differ from those faced by nurses in hospital settings.

ORIENTING FRAMEWORK

Concepts from Watson's theory of human care served as the orienting framework for this research.¹⁵ Watson's basic premise is that caring is an intersubjective human process and the moral ideal of nursing. An integral part of Watson's theory is the development of "carative" factors in nursing. Carative factors help a person attain health, as contrasted with "curative" factors which are aimed at curing a person of disease. One carative factor is the provision for a "supportive, protective, and (or) corrective mental, physical, sociocultural, and spiritual environment".¹⁵ This factor captures the essence of this research as the investigators seek to identify those factors in the environment that can be manipulated to provide a more carative one for the morbidly obese patient.

METHODS

Purpose of the study

The purpose of this study was to describe the challenges nurses across practice settings face in providing care to the morbidly obese and to determine if there are differences in these challenges.

Design and Sample

The study used a descriptive survey design to identify the challenges nurses face in caring for bariatric patients across practice settings.

A purposive sample was used. Nurses' names and mailing addresses were generated from the membership list of the National Association of Bariatric Nurses. This organization includes members who practice in a variety of settings and would most likely have regular contact with morbidly obese patients. This generated a sample of approximately 160 nurses. There were no specific criteria for inclusion, other than membership in the NABN.

The intent of the research group was to survey nurses in the outpatient and community health areas of our own tertiary care center as well. The institution declined to release the names and addresses of these nurses, but the nurse managers were agreeable to distributing the surveys directly to these nurses. They distributed the survey instrument to approximately 240 nurses in their areas.

In total approximately 400 questionnaires were distributed either through the nurse managers or through the United States Postal Service.

The study was approved by the Medical Center and University Joint Institutional Review Board.

Instrument

Data were collected from a survey instrument designed by the Bariatric Nursing Consortium and based on the findings from the earlier focus group study. Items were grouped under the categories of Patient-Nurse Satisfaction (five items), Staffing Issues (two items), Equipment Challenges (ten items), Patient Safety Considerations (ten items), and three items under Psychosocial and Family Issues. Some items required a Likert-type response while others were multiple choice items.

The instrument was reviewed for clarity, content validity, and aesthetics by a small group of nurses with bariatric nursing experience. Four nurses also pilot-tested the questionnaire and provided feedback on questions and overall clarity. After modifications, the instrument was ready for distribution.

Data Analysis

Statistical analyses were performed using the SPSS 13.0 software package (SPSS, Inc., Chicago, IL). Variables were described by percentages, means, and standard deviations. Comparisons between practice settings were conducted using a one-way analysis of variance for planned comparisons of factor ratings, and chi-square for frequency counts. A p value of .05 was used to establish statistical significance.

RESULTS

There were 109 usable surveys (27%) In several questionnaires, not all questions were answered, therefore the total number of responses per question was not always 109.

Demographic Data

Table I presents the characteristics of the study sample. The respondents were primarily white, female, older, experienced nurses. Over half held a BSN or higher nursing degree. Among the 109 respondents 54% identified their primary work area as an in-patient setting, 30% as an outpatient setting, and 16% as a community setting. Almost 70% had daily contact with morbidly obese patients.

Table 1. Description of Study Sample (N = 109)

Variable	n	%
Gender		
Male	9	8.3
Female	100	91.7
Mean Age	44.6	(range 24-63)
Race		
White	93	85.3
Black	13	11.9
Other	3	1.8
Years as RN		
≤5	10	10.2
6-10	14	12.8
11-20	44	40.4
>20	41	37.6
Educational Level*		
Diploma	12	11.3
ADN	34	31.8
BSN	44	41.1
>BSN	17	15.9
Practice Setting		
In-patient	59	54.1
Outpatient	33	30.3
Community	17	15.6
*2 missing		

Weight at Which Challenges Increased

Nurses were asked at what weight the challenges in providing care became evident. Their mean response was 300 pounds.

Specialized equipment:

The majority of respondents overall (61.3%) reported having specialized equipment available for the care of the morbidly obese, and 48.6% reported that the equipment was accessible to them. Forty-two percent of respondents agreed or strongly agreed that they always used this equipment when providing care.

When broken down by practice sites, however, the data suggested that practice sites varied in the availability of specialized equipment. For the most part, nurses practicing in in-patient settings (85%) reported that specialized equipment was available. However, fewer than half the nurses in out-patient settings reported having equipment, and the majority of nurses in community settings reported having no specialized equipment. ($p > .001$)

Staffing, Frequency of Care, and Satisfaction

Table 2 summarizes the adequacy of staffing, frequency of morbidly obese patient contact, and whether the respondents felt that taking care of morbidly obese patients was a satisfying experience by practice setting.

Overall, less than 50% of the respondents reported that they had enough staff to handle the workload when morbidly obese patients were in the case-mix. This lack of staffing was most noticeable in in-patient settings; only 39 % of the in-patient respondents reported adequate staffing. Staffing was less of an issue in outpatient and community settings.

When asked whether taking care of morbidly obese patients was a satisfying experience, 52% of the respondents reported that the experience was satisfying. Satisfaction was highest for nurses working in in-patient facilities and lowest for those in community settings.

Table 2. Adequacy of Staffing, Frequency of Morbidly Obese Patient Contact, and Satisfaction with Caring for the Morbidly Obese Patient, by Patient Setting

Variable	Overall n (%)	In-Patient n (%)	Out- Patient n (%)	Community n (%)
Staffing Adequate				
Yes	53 (49)	23 (39)	19 (58)	11 (65)

	No Opinion	24 (22)	13 (24)	8 (24)	3 (18)
	No	32 (29)	23 (39)	6 (18)	3 (18)
Frequency of Care					
	Daily	75 (69)	44 (75)	27 (82)	4 (24)
	Once per Week	22 (24)	15 (9)	18 (6)	53 (9)
	Once per Month	10 (90)	6 (10)	0 (0)	4 (23)
Satisfaction					
	Yes	56 (52)	34 (58)	16 (50)	6 (35)
	No Opinion	35 (32)	13 (22)	14 (44)	8 (47)
	No	17 (16)	12 (20)	2 (6)	3 (18)

Staffing was significantly related to the satisfaction of those working in outpatient facilities, and 81% of the outpatient nurses who reported taking care of morbidly obese patients was a satisfying experience also reported they had adequate staffing. In contrast, only 38% of the outpatient nurses who had no opinion or reported some level of dissatisfaction with taking care of morbidly obese patients also reported that they had adequate staffing ($p=.03$).

Having access to specialized equipment was significantly related to satisfaction for those working in in-patient facilities; over 97% of those who reported satisfying experiences also had access to specialized equipment. In contrast, 68% of those not reporting a satisfying experience had access to specialized equipment ($p=.003$).

Nurses in in-patient and outpatient facilities had most daily contact with morbidly obese patients, and although not statistically significant, the frequency of contact was associated with satisfaction. Only 30 % of those having monthly contact with morbid obese patients reported that the experience was satisfying, compared to a 46% rate of satisfaction with weekly contact, and a 57% rate of satisfaction with daily contact.

Factors contributing to obesity

Nurses were asked to rank the genetic, physiological, behavioral, and psychosocial factors that they felt contributed to morbid obesity. They were asked to rate each factor a 1 if they thought that factor was the most important, a 2 for the second most important factor, etc. Table 3 shows the average ratings of nurses in each work setting.

Overall, the factor most frequently ranked first was behavioral, followed by psychological, genetic, and, lastly, physiological factors. Among in-patient nurses, the average rating of behavioral factors was significantly less important

than among nurses working in either outpatient or community settings. Similarly, the average rating of physiological factors was significantly more important for in-patient nurses than for those working in outpatient or community settings.

Table 3. Means and Standard Deviations of the Ratings Factors Contributing to Morbid Obesity, by Practice Setting

Factor	Overall M (SD)	In-Patient M (SD)	Out-Patient M (SD)	Community M (SD)
Genetic	2.6 (1.16)	2.4 (1.14)	2.9 (1.15)	2.7 (1.20)
Physiological	3.0 (1.05)	2.8 (1.11)*	3.1 (1.03)	3.5 (0.63)
Behavioral	2.0 (0.94)	2.3 (1.02)**	1.6 (0.70)	1.6 (0.73)
Psychosocial	2.4 (1.08)	2.4 (1.17)	2.5 (1.00)	2.3 (0.93)

*p = .02; **p < .001

Barriers to Care

Nurses were asked to indicate which were the most important barriers to providing excellent care to the morbidly obese by rating each of seven barriers with a 1 to indicate most important, a 2 for the next important, etc. Table 4 shows the percentage of nurses who ranked each barrier as most important.

Special equipment needs were ranked as most important by the largest percentage of both in-patient (36.3%) and outpatient nurses (37.5%), while the personality of the patients was identified as most important by 51% of the community nurses. Nurse attitude and staffing concerns were more important barriers for in-patient nurses than for nurses working in outpatient and community settings. It is interesting to note that safety concerns were not identified as a major barrier to providing excellent care.

Table 4. Barriers to Care Ranked Most Important, by Practice Setting

Barriers	Overall %	In Patient %	Out Patient %	Community %
Special Equipment Needs	32.7	36.4	37.5	11.8
Patient Personality	19.2	10.9	21.9	41.2
Nurse Attitude	27.9	32.7	21.9	23.5
Staffing Concerns	11.5	16.4	9.4	0.0
Safety Concerns	12.5	10.9	15.6	11.8
Lack of Specialized Knowledge	1.9	1.8	3.1	0.0
Lack of Community Resources	2.9	0.0	3.1	11.8

DISCUSSION

Nurses confirmed earlier findings that the care of these patients was more challenging than the care of other patients and this is consistent with findings from the earlier study.⁵ As in the earlier study, a weight of approximately 300 pounds was cited as the level at which challenges increase dramatically.

Specialized equipment for managing the morbidly obese patient was available for most (85%) of the in-patient nurses, but less available in outpatient and community settings. Where the equipment was available, it was used by a large proportion of the nurses.

Inadequate staffing was identified as an issue for in-patient nurses, but less so for nurses in outpatient and community settings. Staffing was related to satisfaction for nurses in outpatient settings, while having access to specialized equipment was related to satisfaction for nurses in in-patient settings.

A slim majority of nurses practicing in both in-patient and outpatient settings reported satisfaction with providing their care. Another third appeared to be neutral. Nurses working in community settings reported the lowest level of satisfaction. It was interesting to note the large percentage of 'no opinion' responses to the satisfaction question. We do not know how to interpret these data, but at the very least the "no opinion" response suggests that the experience of providing care to the morbidly obese was not positive for those nurses.

The relationships of nurse satisfaction to the availability of specialized equipment and also the adequacy of nurse staffing need further study. Given the physical challenges of providing this care, coupled with a need for increased staff and a need for specialized equipment, these patients may be significantly more challenging than comparably dependent but non-obese patients, leading to frustration on the part of the nurse.

Overall, the nurses in this study rated modifiable factors as more important contributors to morbid obesity than genetic or physiological factors. We speculate that these nurses may be subscribing to the cultural stereotype of obese people as "gluttons" or "slothful" who are at fault for their obesity. An earlier study¹⁶ documented the prevalence of negative attitudes among nurses toward the morbidly obese.

Although the majority of respondents in this study felt that the staff resources were adequate, earlier studies documented an increased need for staff with morbidly obese patients.⁵⁻⁷ A further consideration is that only 59% of nurses reporting that they had access to equipment used it all the time.

The nurse's attitude was also identified by the nurses themselves as a significant barrier to care. Further study is necessary to first understand what constitutes the

“nurse’s attitude”, and then to understand how it relates to the preceding variables Until we understand how these factors relate to one another, we cannot begin to modify this variable in a positive way.

Providing nursing care to the morbidly obese patient is very challenging as evidenced by the relatively low percentage of nurses in this study who report that taking care of such patients is a satisfying experience. This study identified various factors which may be related to this satisfaction variable, including staffing adequacy, lack of specialized equipment, a belief that behavioral issues are a major contributor to morbid obesity, and a belief that it is the patient’s personality which is a major barrier preventing the nurse from providing optimal care.

Implications for nursing

Safety for the patient and the nurse must be the first consideration. If there is assistive equipment available, nurses should be sure that they are fully informed on the guidelines for its use. They should plan for its use, rather than “shortcut” the process by manual lifting which heightens the risk of injury.

Nursing administrators can assist by arranging for storage of equipment in a convenient and accessible place for nurses. They can also examine their institutions’ policies in terms of patient and caregiver and consider some of the options that have been suggested, such as a policy on the elimination of manual lifting.

Nurse staffing is problematic in this time of nurse shortage. It appears clear, however, that nurses perceive the need of additional staff when caring for the morbidly obese patient. To the extent that nurse managers can provide this additional staff, it should be done.

The nurses themselves noted that “nurse attitude” was a barrier and this area should be studied further. Nurses should examine their own biases toward the morbidly obese, if they do exist, and attempt to remove them. One way is gain greater understanding about factors that bring about the condition and, to the extent possible, identify ways that have been successful in promoting weight loss.

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