Research Article

Development of the Family Support Scale (FSS) for Newly Pregnant Women

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Abstract

Maternal mortality and morbidity are challenging issues particularly for developing countries such as Bangladesh. Pregnant women (particularly newly pregnant women) are vulnerable to both maternal mortality and morbidity. Family support, which varies according to social and family situations, may be an important factor in the welfare of pregnant women. An assessment scale for measuring family support for newly pregnant women would be useful for describing their real living situations. The aim of this study was to develop a vigorous family support scale for newly pregnant women in Bangladesh. The study participants were 30 newly pregnant women (aged between 20 to 30 years) who were asked about the support they perceived that they receive from their families. The developed family support scale was found to be a reliable scale for newly pregnant Bangladeshi women, with an internal consistency reliability level of 0.74 (Cronbach's Alpha Coefficient). The study's findings are considered transferable to other developing countries. The scale can be used to assess newly pregnant women's perceived family support in Bangladesh and other developing countries and can support initiatives to improve family support.

Keywords: Newly pregnant women; Family support

Introduction

Maternal mortality ratio is the annual number of female deaths per 100,000 live births from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes). The mortality ratio includes deaths during pregnancy, childbirth, or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, for a specified year [1]. Globally, about 99% of maternal deaths happen in low- and middle-income countries [2]. The Maternal Mortality Ratio in Bangladesh is quite high [3] at 173 deaths/100,000 live births [1], and 13% of deaths of women aged between 15 and 49 occur due to maternal causes, including hemorrhage and abortion-related complications [4]. In addition, about 14 pregnant mothers die every

day while giving birth to children in Bangladesh particularly in the rural areas where inadequate health care including safe delivery care facilities [5]. Maternal health is a national priority in Bangladesh. To reduce maternal deaths, the Bangladesh government has initiated programs such as the prevention of early marriage (before 18 years old) [6], implemented World Health Organization (WHO) recommended ideal antenatal visits [7], increased safe delivery facilities, and encourages the use of skilled maternity services. Additionally, in the district and Upazila levels, government deployed skilled midwives to ensure available and skilled delivery care [8]. In Bangladesh, two ongoing problems are particularly relevant to maternal welfare. Firstly, about one-fourth of the total population

lives below the poverty level. Secondly, the male-dominated social system creates and perpetuates gender inequality [9]. Also, women are often treated as subordinates by their husbands and are socially- and economically dependent on them. Under this male domination, many women may not visit a health facility or care provider unless accompanied by a family member, nor can they make spending decisions without the approval of their husband [10]. As a result, many women, particularly pregnant women, are fully- or partially dependent on family support for access to antenatal care.

In rural areas, other factors that may affect pregnant women's health are low economic and nutritional status, ignorance, physical violence, domestic quarrels with husband and in-laws, stress, poor relationships, and absence of family fanning methods [11-14]. Studies found that lack of attention from the husband will lead to increased pregnancy complications [15-16]. Family Support helps families to access services, including formal supports and informal supports to promote the well-being of families with special needs [17]. Thus, a correct tool for measuring this family support system is useful.

Family support is the support that individuals get from other family fellows. This support varies according to the individual and their needs. Pregnancy is a physiological condition where pregnant women need special care and services. Family support is key to meeting pregnant women's needs, ensuring they receive appropriate care and can access necessary services. Good family support also contributes positively to reduced maternal mortality and morbidity and infant mortality and morbidity. The following instruments exist for assessing family support: (a) The Family Support Scale [18]. This 13-item scale is suitable for inpatients and epidemiological studies; (b) The Perceived Social Support from Friends and Family [19] consists of 20 items; the participants were undergraduate students and it was developed in an American cultural context; (c) The Chinese Family Support Scale [20] was developed specifically to measure family support in hypertension patients; (d) The Perceived Family Support Scale to Individuals with Special Needs [21] was developed for hearing-impaired individuals; (e) The Thai Family Support Scale for Elderly Parents [22]; and (f) The Family Support Scale (FSS) for Elderly Persons [23]. Nevertheless, no one of these scales is fit for assessing family support for newly pregnant women in Bangladesh due to traditional, societal, and health care services differences. Consequently, there is an earnest need to develop a family support scale (FSS) for Bangladeshi pregnant women.

Data and Methods

Family support is the care that pregnant women get from their husband and other household members. It is similarly significant to assess pregnant women's insight that their family is capable and ready to deliver such support. Literature about family support [18-23] has been reviewed and the results applied in the development of the current study's Family Support Scale for newly pregnant women.

Sample

The sample of this research was 30 newly pregnant women who were using a divisional town's model family planning clinic in the Sylhet division of Bangladesh in November 2020. The clinic provides antenatal and other family planning care. Before data collection, the investigator obtained oral permission from the model family planning clinic authority. The researcher assigned a research assistant to data collection. The research assistant was informed of the research's purposes and data collection methods. Newly pregnant women who visited the model family planning clinic for services were considered as participants. After they had accessed the services, they were asked to participate in an interview for data collection. Informed written consent was obtained from those patients who agreed to participate in the interview. The research assistant read the Bengali-language questionnaire to the newly pregnant women and marked their responses on the questionnaire sheet.

Validity of the Family Support Scale for Newly Pregnant Women

'Content validity' denotes to the precision of a measurement tool. The researcher requested three (03) specialists to evaluate the English version instrument to check its content validity and cultural suitability. The specialists were from the National Institute of Advanced Nursing Education and Research [NIANER], College of Nursing, Sher-E Bangla Nagar, Dhaka and Fozderhat Nursing College, Chittagong, Bangladesh. The final version of the scale was reviewed based on the specialists' remarks. The final English version of the Family Support Scale for newly pregnant women was converted using the back–conversion method [24]. The original English scale was converted into Bengali by an interpreter. The Bengali scale was then converted back to English by another convertor. Subsequently, a third convertor linked the two English forms and recognized any contradictions. These were then corrected.

Instruments

This study used a self–directed questionnaire, developed by the researcher, originated on current literature about family support. The instrument had two parts. Part 1: the Demographic information with seven items: age, occupation, religion, highest educational level, number of family members, family's monthly income, and husband's occupation. Part 2: the Family Support Scale for newly pregnant women, in which the newly pregnant women evaluated their perception of their family's support for them using 18 criteria: love, family's happiness with, and awareness of, the pregnancy (2 items), health, help, information, emotions, companionship, food, taking of iron and folic acid, sleep, personal needs, health needs, antenatal care, treatment, relationship with family, family's contribution to the participant's happiness, and personal happiness. Each item was assessed via a 4-point, Likert-style scale, with potential scores ranging from 0 (none) to 3 (much). Total potential scores were between 0 and 54. Greater scores

indicate greater perceived family support for the newly pregnant women.

Results

Demographic information

The participants were 30 newly pregnant women between 20 and 30 years old, with a mean age of 21.57 years. Twenty-nine were Muslim and one was Hindu. Twenty-nine were housewives and one was employed. Nine had completed only primary level education, nineteen has also completed secondary level education, one had also completed higher secondary level education, and one had also completed higher level education. Their family sizes were between 2 and 10 people. Family's monthly incomes were between 2000.00 and 25000.00 Taka. Participants' husbands were engaged in private services, business, and other professions (Table 1).

Table 1: Demographic features of the sample (n=30).

Characteristics	Frequency	Percentage
Age 20-30 years Mean =21.57 years	30	100.00
Religion		
Islam	29	96.67
Hindu	01	3.33
Occupation		
Housewife	29	96.67
Employee	01	3.33
Highest education level		
Primary	09	30.00
Secondary	19	63.33
Higher secondary	01	3.33
Higher	01	3.33
Number of family members		
02-05	15	50.00
06-10	15	50.00
Monthly income		
2000.00-12000.00 Taka	13	43.33
13000.00 Taka and above	17	56.67
Husband's occupation		
Private services	09	30.00
Business	04	13.33
Others	17	56.67

Reliability of the Family Support Scale for Newly Pregnant Women

The Family Support Scale for newly pregnant women was confirmed for internal consistency reliability. The SPSS program was used to examine the data. All 18 items were entered into the package and analyzed. The result was a Cronbach's Alpha Coefficient of 0. 74 (Table 2 & 3).

This goal of this study was to develop a usable and consistent tool for assessing family support for newly pregnant women. The Family Support tool was developed based on the results of the literature review. Twenty- five areas of support were recognized during the literature review. More than half had contained in earlier studies' tools for assessing family support: love, activities, personal needs [16], information, and company [18], emotional support, health needs, personal needs, treatment, food, and sleep [23]. The present study's researcher also included one common item of "taking good care" which enclosed a variety of support areas, including the family's awareness of the pregnancy, their encouragement with maintaining health, the taking of daily iron and folic acid tablets, antenatal care, and the relationship between the participant and their family. Item analysis was performed. Seven items were deleted to raise the standard level (Cronbach's Alpha Coefficient equal to or more than. .70). The 18 items were selected, and their mean and Standard Deviation given (Table 4).

Table 2: Reliability of the family support scale (Reliability Statistics).

Cronbach's Alpha	N of Items
.741	18

Table 3: Item analysis statistics of family support scale.

Item	Mean	Standard deviation	N
1	3.0000	.00000	18
2	3.0000	.00000	18
3	2.8000	.40684	18
4	2.7667	.43018	18
5	2.3667	.49013	18
6	2.6333	.66868	18
7	2.8667	.34575	18
8	2.7333	.44978	18
9	2.6000	.67466	18
10	2.7000	.46609	18
11	2.6667	.47946	18
12	2.7667	.43018	18
13	2.9000	.30513	18
14	2.8000	.40684	18
15	2.7333	.52083	18
16	2.8667	.34575	18
17	3.0000	.00000	18
18	3.0000	.00000	18

Table 4: Eighteen (18) items of family support for the newly pregnant women.

Item no	Item	No	Little	Some	Much
1	My family loves me.	0	1	2	3
2	My family is happy with my pregnancy.	0	1	2	3
3	My family is aware of my pregnancy.	0	1	2	3
4	My family encourages me to take care of my health.	0	1	2	3
5	My family helps me in my daily work.	0	1	2	3
6	My family gives me pregnancy-related information.	0	1	2	3
7	My family gives me emotional support.	0	1	2	3
8	My family gives me companionship	0	1	2	3
9	My family is careful about my food.	0	1	2	3
10	My family helps me take daily iron and folic acid tablets	0	1	2	3
11	My family is careful about my sleep.	0	1	2	3
12	My family helps to meet my personal needs.	0	1	2	3
13	My family helps to meet my health needs.	0	1	2	3
14	My family helps me take regular antenatal care.	0	1	2	3
15	My family helps me with treatment	0	1	2	3
16	I have a good relationship with my family.	0	1	2	3
17	My family helps me stay happy.	0	1	2	3
18	I am happy with my family.	0	1	2	3

Directions: These are queries about your family support. Please tick (√) the one choice that is most suitable for you.

Discussion

This study aimed to develop a scale to measure the newly pregnant women's perceived family support from the family. The participants were 30 newly pregnant women. They were selected from a family planning clinic located in Sylhet division in Bangladesh. A self-administered scale consisting of 25 questions was used to

collect the data. The data were analysed and internal consistency reliability (Cronbach's Alpha Coefficient) was found to be less than .70, below the standard level. To increase the internal consistency reliability level, seven (07) items were gradually deleted. Internal consistency reliability (Cronbach's Alpha Coefficient) was then verified again and was found to be .74, the standard level. Finally, the 18 items were selected to develop the family support scale (FSS) for newly pregnant women. The limitations of this study were: a) data were collected from a single setting; b) most participants were housewives; c) most participants' highest education levels were primary or secondary.

Conclusion

The final form of the 18-item FFS is a self-reporting questionnaire which assesses newly pregnant women's perceived family support. An acceptable and standard number of samples were used to collect data. The psychometric properties of the scale were established through back conversion, assessment of cultural suitability, assessment of content validity, and validation of reliability using the SPSS package. The FSS's reliability was above the suitable level [25].

Recommendations

Further study may be conducted to collect data from different hospital settings, including rural and urban, and from various groups, including the employed and unemployed, the more-educated and less-educated, and those with small and large families.

Ethical Considerations

Approval was obtained from the study setting's authority and participants.

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Conflicts of Interest

No conflict of interest has been stated by the researchers.

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