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IMPROVING HEALTH-RELATED QUALITY OF LIFE AMONG VESICO VAGINAL FISTULA PATIENTS IN ZARIA, NIGERIA

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Abstract

Quality of life, described as physical, mental and social wellness of individuals, has become a major concern to Vesico Vaginal Fistula (VVF) patients. Most of the previous studies on VVF have focused on the negative emotions and distress encountered by patients. However, the positive emotions which may improve the quality of life of VVF patients have not been fully explored empirically. This study, therefore, examined positive psychosocial factors predicting Health-Related Quality of Life (HRQoL) among VVF patients in Zaria, Nigeria. Two hundred and eighty nine (289) clinically diagnosed VVF patients who met the inclusion criteria of being diagnosed by a gynecologist and with ability to communicate in either English or Hausa language were purposively selected at the VVF unit of Ahmadu Bello University Teaching Hospital, Zaria. The age of respondents was 17.43 (SD = 3.86). A validated

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structured questionnaire was used to collect data. Results showed that_coping (problem-focused and emotion-focused), social support, self-efficacy, optimism and perceived cultural practices jointly predicted HRQoL ($R=0.56$; $R^2=0.31$; $F(6,282) = 38.11$). Problem-focused ($\hat{a} = 0.15$), emotion-focused ($\hat{a} =-0.45$), social support ($\hat{a}=0.26$), self-efficacy ($\hat{a} =0.31$), and optimism ($\hat{a} =0.37$) were significant independent predictors of HRQoL. Perceived cultural practices did not predict HRQoL. It was recommended that positive psychology qualities of self-efficacy, optimism, social support, and coping strategies should be taken into consideration when patients with VVF are undergoing treatment because they play major roles in improving health-related quality of life of the patients by recognizing that life is still meaningful.

Keywords: Health-related quality of life, Positive psychology qualities, Vesico vaginal Fistula, Perceived cultural practices
Word count: 244

Introduction

Health is defined not only as the absence of infirmity, but also as a state of physical, mental and social wellness. The main goal of health care is quality of life which is a significant factor for individual health. The World Health Organization(WHO,2005) tried to embrace the complexity of the term "Quality of Life"(QoL) defining it as the perception that an individual has about their place in their own existence, in the context of culture and their value system in which they live in relation to their objectives, expectations, norms, concerns etc. Health-related quality of life (HRQoL) refers to people's subjective evaluations of the influences of their current health status, health care, and health promoting activities on their ability to achieve and maintain a level of overall functioning that allows them to pursue valued life goals and that is reflected in their general well-being. The domains of functioning that are critical to HRQoL include: social, physical and cognitive functioning; mobility and self-care; and

emotional well-being. Quality of life is a complex concept that encompasses objective and subjective dimensions. In general terms, objective quality of life is quality of life measured by means of objective criteria, social and economic indicators, without recourse to personal experience and individual perceptions of environment. Subjective quality of life is the perception of well-being and evaluation of own position in life based on experience. The objective quality of life is evaluated by composite indices such as money, food, housing etc. (Carpio, Pachecho, Flores & Canales, 2000; Novoa, Cruz, Rojas & Wilde, 2003). On the other hand, studies of subjective quality of life focus on individually experienced quality of life, which is often measured by means of quantitative methods such as questionnaires and scales (Diener and Suh, 1997; Olapegba, 2009). Olapegba, Balogun and De Paul Chism (2012) also agree that health-related quality of life is a function of the aggregate of several domains of an individual's life and experiences; but they are of the opinion that the different domains may, however, differ in their strength of contribution to the perception of quality of life.

Vesico Vaginal Fistula (VVF) is an abnormal communication between the vagina and the bladder/urethra, which results in the continuous dribbling of urine that wets the clothing of the victims leading to excoriation of an already damaged vulvae and vagina. This condition is characterized by persistent leakage of urine resulting in perineal wetness, excoriation and pain, and a pervasive urinary odour, which has severe negative impact on the quality of life of affected women (Karshinia and Otubu, 2006; Danso, 2005). Most of these women also develop low self-esteem, depression and may become socially withdrawn (Balogun, 1997). If the condition is not corrected promptly, an affected woman may be abandoned by her community, close relatives and even her husband. In extreme cases, she is treated as a social outcast and excommunicated from her community (Balogun, 1994). Vesico vaginal fistula with its devastating effects on the women's personal hygiene, self-esteem, interpersonal relationships and environment may disrupt all three elements of her health. These demoralizing conditions thus destroy the psychological well-being of the patients. When someone loses confidence in enjoying a quality of life, she often lives a miserable life. This condition is a typical example of a Nigeria woman who is a patient of VVF.

Vesico vaginal fistula (VVF) appears to have been in existence since antiquity (Sims, 1852). Vesico vagina fistula is a preventable disease but is prevalent among the less privileged and marginalized members of the population; the poor, young illiterate girls and women in the remote rural areas of the world, where access to emergency obstetric care, family planning services and skilled birth attendants are unavailable and where available poorly utilized (Waaldijk,1994).

There are three sets of causes of fistula: obstetric, traumatic, and iatrogenic.- While obstetric fistula is by far the most common cause, it can be prevented if a woman experiencing prolonged or obstructed labour has timely access to emergency obstetrical care, specifically a Caesarean (C-section). In Nigeria, there are socio-cultural circumstances or causes that are contributing factors to the problem of VVF. These socio-cultural factors are mostly responsible for underlying behaviours and conditions that initiate and sustain the affliction of VVF on its victims. One of these factors is early marriage. A woman who is given out in marriage as early as 10 to 16 years of age usually has a small and narrow pelvis. Early introduction to sexual activities as a result of this marriage leads to early pregnancy when the growth of pelvis is not complete, this situation causes cephalopelvic disproportion, a condition when the baby's head or body is too big to fit through the mother's pelvis (Ajuwon, 1997). Since the birth canal is too narrow for the baby to come out, a prolonged and obstructed labour occurs, threatening both the life of the mother and the child at the same time. The trauma experienced by the woman may damage her birth canal, thus giving way to reproductive tract infections; this in turn leads to the development of an opening or fistula between the vagina and the urethra, which allows urine to pass through the vagina uncontrollably (The safe Motherhood Newsletter, 2005). WHO(2006) reports that "In Ethiopia and Nigeria, for example, over 25% of fistula patients had become pregnant before the age of 15, and over 50% had become pregnant before the age of 18". Age at marriage no doubt affects pregnancy and labour complications among Nigerian women, hence a likelihood of VVF.

Another important underlying factor to the problem of VVF in Nigeria is the customary birth practices. Most prominent is the female genital cutting or simply put; female circumcision. For instance, the *gishiri* cut which is very popular in the Northern part of Nigeria involves the

incision of parts of the vagina with razor blade or a large curved knife, the cut is made against the pubic bone endangering both bladder and urethra. The cuts are often handled by traditional healers or traditional birth attendants to prevent or treat numerous conditions including prolonged obstructed labour, infertility, backaches, dysuria and coital difficulties (Ajuwon, 1997). Other reasons are to prevent promiscuity and premarital pregnancy, to guarantee marriage with subsequent economic and social security for a daughter's future (Moir, 1967).

Mutilation of the female genitals could come in various forms and this undoubtedly contributes to the problem of VVF in such countries where it is practiced. Tahzib (2003) reported while investigating the epidemiological determinants of VVF in Nigeria, that among the 80% cases of VVF caused by obstructed labour, one-third of them all had undergone one form of genital mutilation or the other. WHO(2006) also reports that FGM may explain as many as 15% of fistula cases in some parts of Africa. Circumcised women often face lots of health consequences. However, the consequences may rely on the type of procedure performed, the extent of the cutting, the skill of the practitioner, the hygiene of the instruments, the environment of the operation, and more importantly, the physical condition of the girl to be circumcised (Chalmers & Omer-Hash, 2003).

There are large differences in the incidence of vesico vaginal fistula among populations. Globally, over two million women are estimated to be living with VVF and majority is in sub-Saharan Africa and South Asia (Kelly and Kwast, 1993). The reported incidence rates in West Africa range between 1-4 per 1,000 deliveries (Ijaiya, 2004; Ijaiya, 2002). An annual obstetric fistula incidence is estimated at 2.11 per 1,000 births (Tsui, Creanga and Ahmed, 2007) meaning that from 100,000 to 1,000,000 Nigerian women lives with obstetric fistula (Wall, 1998). Recent prevalence of obstetric fistula is estimated as 150,000 (UNFPA, 2002). Previous estimates put the prevalence between 800,000 and 1,000,000 (Wall, 2002). It is also estimated that Nigeria accounts for 40% of the worldwide fistula prevalence with approximately 20,000 new cases occurring each year, although recent studies put estimates at approximately 12,000 new cases per year (The Guardian, 2007; Engender Health, 2010

Sadauki, 2015). According to the 2008 National Demographic Health Survey (NDHS), the prevalence of obstetric fistula is 0.4%. Fistula prevalence is higher in zones in Northern Nigeria than in Southern Nigerian zones. For instance, the prevalence of fistula in North Central Nigeria is 0.8%, followed by 0.5% in the North East and 0.3% in North-West Nigeria. In contrast, the highest prevalence in the Southern zones was found in South-South Nigeria (0.5%), followed by South-East Nigeria (0.3%) and South-West Nigeria (0.2%). The prevalence for all Northern zones combined is 0.5%, compared to 0.3% for the Southern zones. Almost one-third of women surveyed (30.7%) had heard of fistula symptoms, with knowledge considerably higher in the North East and North West zones (49.6% and 66.2% respectively) than in other zones of the country. Applying the 0.4% lifetime prevalence to the estimated number of women of reproductive age in Nigeria (37,425,000) (UNO Data); 149,700 (approximately 150,000) women of reproductive age in Nigeria either currently have obstetric fistula, or have experienced fistula symptoms in the past.

There have been no large scale prospective studies done in Nigeria to provide reliable estimates of incidence of obstetric fistula. Projections have been made using age specific NDHS estimates of lifetime prevalence, the average population size of each age group of women in the nation (UNO Data) and the average number of years since last birth, to arrive at estimates of incidence in Nigeria (Engender Health, 2010). An accepted estimate of incidence is approximately 20,000 new cases a year because of large scale unreported births happening outside health facilities, although recent studies stated lower estimates of approximately 12,000 new cases per year (Engender Health, 2010 ; Vanguard, 2015). Meanwhile, the traditional paradigm of therapy in psychology has always focused on diagnosis and treatment, the approach makes the therapists the focus and solution finders with little emphasis on what the client can contribute to the success of the therapy. A newer approach called positive psychology puts the client at the centre while emphasising wellness, prevention and the positive dimensions of adversities.

Positive - Psychology

Positive psychology theory and research have focused heavily on wellness, prevention and individual strengths as a way of improving health related behavior, a distinct difference from earlier mindset and approaches that focused wholly on diagnosis and treatment (Seligman & Csikszentmihalyi, 2000). Such interest in making a shift in the discipline of psychology has led to the creation of positive psychology movement, a theoretical approach to psychology that has at its primary focus on prevention, capitalizing on one's strengths. Researchers have shown that a variety of human strengths may serve an important preventive role against pathology. By shifting the focus of psychology to the positive traits of individuals, important strides can be made in understanding not only how to enhance people's lives, but also how to prevent or buffer against negative psychological effects (Seligman & Csikszentmihalyi, 2000). Although a variety of constructs related to human strengths have been identified and studied (some more extensively than others), these positive psychology constructs of health-related quality of life, optimism, self-efficacy, social support and coping strategies will be considered in this study.

Health-related quality of life has been associated with different concepts. Some of these concepts are often viewed as strengths that may enhance and develop the quality of life of people with morbidities and one of them is self-efficacy. It is the belief in one's competence to attempt difficult or novel tasks and to cope with adversity arising from specific demanding situations (Cross, March, Lapsley, Byrne and Brooks, 2006).Self-efficacy is an important factor in coping with the challenges and demands presented by a chronic condition. Psychologists have viewed optimism as an individual difference variable describing a person's general positive expectation about the future (Baumgardner & Crothers, 2009).Optimism is identified as a personality trait and it is proposed that optimistsareindividuals who typicallyexpect to achievepositiveoutcomes in their lives (Carver &Scheier,2014).

Coping could be one of the crucial concepts in understanding psychological adaptation when people are confronted with chronic stressful circumstances such as physical illnesses like vesico vaginal fistula. A striking point in Lazarus and Folkman's Transactional Model of Stress and Coping (1984) is that coping strategies are considered the intermediate process

between stressors and health outcome. Indeed, Folkman, Lazarus, Dunkel-Schetter, Delongis and Gruen (1986) found that the process of coping can change the relationship between life stressors and health. Social support on the other hand is a buffer against life stressor as well as an agent promoting health and wellness (Balogun, 1994, Dollete, Steese, Phillips and Matthew, 2004). Also, it has been emphasized that inadequate social support is associated not only with an increase in mortality and morbidity but also a decrease in psychological well-being (WHO, 2002). Traditional cultural practice reflects values and beliefs held by members of a community or social groupings for periods often spanning generations. Saba (1997) noted that social groupings in the world have specific cultural practices and beliefs; some are beneficial to all members while others are harmful to a specific group such as women and girls. Suffice it here to observe that culture represents the development of specific people in the society which is often equated with civilization. These are some of these cultural practices that are positive and promote health among women while some cultural practices are harmful and also affect health adversely. Some of these cultural practices have been observed, according to Chukwu (2006), to be archaic, dangerous and damaging to the psyche of women. Corroborating this trend, Ebirim (2005) argued that the situation was even worse for women who had low literary level. The issue of perceived cultural practices adversely affecting the health of women is also a focus of this study.

The present study

The present study explores the role of psychosocial factors in enhancing health-related quality of life. More specifically, it examines the role of positive psychosocial variables; namely, self-efficacy, optimism, social support, coping strategies and perceived cultural practices on enhancing health-related quality of life among VVF patients in Zaria, Kaduna State.

Although it is well known that negative emotions and distress cause declines in levels of physical and physiological health, little importance has been attributed to the protective and beneficial effects of positive emotions and well-being (Pressman and Cohen, 2005; Lyubomirsky, King and Diener, 2005). The goals of healthcare today focus more on improving the patient's quality of life and not merely eliminating or curing illness.

Therefore, it is hypothesized that coping strategies, social support, self-efficacy, optimism and perceived cultural practices will have significant joint influence on health-related quality of life. Furthermore, coping strategies, social support, self-efficacy and optimism will have significant independent influence on health-related quality of life. Finally, perceived cultural practices will not have significant independent influence on health-related quality of life.

Method

Design

A cross sectional survey utilizing an ex-post facto design was used in this study. Using this design facilitated the identification of many relationships in a situation (Burns and Groove, 2009). The positive psychosocial variables that were studied, already existed and were not to be actively manipulated by the researcher. Pain self-efficacy, social support, optimism, coping and perceived cultural practices were the independent variables of the study, while health-related quality of life with four sub-scales (physical health, psychological health, social health and the environment health) was the dependent variable.

Setting

The study was conducted in the VVF unit of Ahmadu Bello University Teaching Hospital, Zaria, Kaduna State. The hospital provides comprehensive fistula care for women including surgery, pre-operative and post-operative counseling. The patients are seen in a weekly clinic where both screening and follow-up is provided. About 500 new patients are seen per year and operated on by expert surgeons. The unit is accredited by the International Federation of Gynecology and Obstertrics (IFGO) as a training centre and provide training for local and international care teams.

Participant's Characteristics

The participants for this study were patients diagnosed of VVF who were available at the hospital and also showed the willingness to participate in the study. A total of 289 participants were purposively sampled for the study. Two hundred and twenty (76.1%) were between 15-40 years and

were classified as young participants while 69 (23.9%) were between 41-70 years and were classified as old. The mean for young participants were 21.45 and SD were 2.48 while for the older participants were 53.21 and SD were 8.06. Seventy three (25.3%) were Christians with mean and SD of 29.82 and 11.7, 209 (72.3%) were muslims with mean and SD of 36.69 and 7.71 while 7 (2.4%) indicated other religion with mean and SD of 9.21 and 3.99 respectively. Fifty three (18.3%) of the participants were single with mean and SD of 24.50 and 3.65 respectively, 172(59.5%) were married with mean and SD of 69.25 and 17.40 while 64(22.1%) were divorced with mean and SD of 30.60 and 7.38 respectively. Frequency distribution by educational qualification showed that 126(43.6%) had no formal education with mean and SD of 78.21 and 8.10 respectively. 103(35.6%) had primary school with mean and SD of 97.15 and 9.18. 56(19.4%) with mean and SD of 68.71 and 7.16 had secondary school. 4(1.4%) had NCE or National Diploma with mean and SD of 8.32 and 3.20. 33(11.4%) had high socio-economic status with mean and SD of 36.34 and 7.69, 76 (26.3%) had medium socio-economic status with mean and SD of 39.32 and 8.70, while 180 (62.3) had low socio-economic status with mean and SD of 89.43 and 11.5 respectively. The distribution for ethnicity indicated that 15 (5.2%) were Ibo with mean and SD of 7.82 and 2.89, 14 (4.8%) were Yoruba with mean and SD of 6.79 and 3.10 while 260 (90%) were Hausa/Fulani with mean and SD of 69.57 and 11.48 respectively.

Procedure

The study was conducted, after the full approval of the study by Social Sciences and Humanities Research Ethics Committee (SSHEC), University of Ibadan, with Ref. No. UI/SSHEC/2015/0010. The researcher sought the permission of the Chief Medical Director, Ahmadu Bello University Teaching Hospital (ABUTH), Zaria, Kaduna State where the study was conducted. Thereafter, the patients that met the inclusion criteria were approached by the researcher and a research assistant that understood English and Hausa Languages; the purpose, risk and benefits of the study were explained to them. Potential participants were assured of their confidentiality, and that their treatment would not be tied to their decision to participate in the study, or otherwise. Informed consent processes was

duly followed. Willing participants were given either English or Hausa version of the questionnaire as appropriate. The questionnaire required about 20-25 minutes for completion.The returned questionnaires considered adequate for data analysis were coded, stored and entered for data analysis using the SPSS 20.0 version of computer software package.

Measures

Self-administered structured questionnaire with seven sections was used for data collection.

Section A: Demographic information: age, religion, educational background, marital status, socio-economic status and ethnicity.

Section B: Assessment of Health-Related Quality of Life. This is the World Health Organization Quality of Life Assessment Instrument – UK Version (WHOQoL-BREF) developed by WHOQOL Group (1998b). The instrument was a 26-item questionnaire developed to assess health-related quality of life in different cultures. The WHOQOL-BREF consists of two parts. The first part, which has two (2) items, evaluates the patients' subjective assessment of their quality of life and satisfaction with their state of health. The second part, which has twenty four (24) items, evaluates the four domains of physical health, psychological health, social health and environment health. Both parts of the measure present a number of questions with a five option Likert rating scale for the respondent to score. The most negative option is given a value of (1) and the most positive, a value of (5). Meaning that the higher the individual's score in the measure, the better her perception of HRQoL.

Skevington, Lotfy and O'Connell (2004) reported the following alpha levels for each sub-scales: Physical health 0.87, psychological health 0.95, social health 0.83 and environment 0.84. These respective following alpha levels of 0.85, 0.85, 0.77 and 0.83 were reported for Nigeria by the same authors. For the present study, the researcher reported alpha levels for each sub-scale as follows: Physical health 0.84, Psychological health 0.86, Social health 0.78 and Environment 0.85. Sample items include, "How would you rate your quality of life? How much do you feel

that pain prevents you from doing what you need to do? How much do you enjoy life? How satisfied are you with your personal relationships? How healthy is your physical environment?" Score above the mean was considered as high score while score below the mean was indicated as low score on the health-related quality of life scale. This means that, participants who score below the mean are poor in their perception of quality of life and those that score above the mean is suggesting a good quality of life.

Section C: Assessment of optimism. Optimism was measured by Life Orientation Tests-Revised (LOT-R) developed by Scheier, Carver and Bridges (1994). It is a 10-item measure of optimism versus pessimism. Of the 10 items, 3items measure optimism i.e. item 1, 4 and 10; 3 items (3, 7, and 9) measure pessimism and 4 items (2, 5, 6 and 8) serve as fillers. Respondents rate each item on 4-point scale: 0=strongly disagree, 1=disagree, 2=neutral, 3=agree and 4=strongly agree. The scoring format indicates that items 3, 7 and 9 are reversed scored and items 2, 5, 6 and 8 are fillers and should not be scored. Scores above the mean was considered as high on the scale meaning that they are optimistic while scores below the mean indicated low scores on the scale and they are pessimistic. Internal validity using Cronbach alpha had been found by the authors to be 0.78. The scale was revalidated and reported Cronbach alpha of 0.82. Sample items include, "in uncertain times, I usually expect the best, I am always optimistic about my future."

Section D: Assessment of self-efficacy. Self-efficacy was measured by Pain Self-Efficacy Questionnaire developed by Nicholas (1980). The PSEQ was designed to assess the confidence people with on-going pain have in performing activities while in pain. It is a 10-item scale with a response format ranging from 0 (not at all confident) to 6 (completely confident). Internal consistency was excellent (0.92 Cronbach's alpha) and test-retest reliability was high over a 3-monthh period (Asghariand Nicholas, 2001). The scale was revalidated and reported a cronbach alpha of 0.81. Sample items include, "I can enjoy things, despite the pain; I can gradually become more active, despite the pain." A total score, ranging from 0 to 60 was calculated by adding the scores for each item.

Scores above the mean was considered as high on the scale measuring that they have strong self-efficacy beliefs, while scores below the mean indicated low scores on the scale and weak self-efficacy beliefs.

Section E: Assessment of coping. Coping was measured by coping scale developed by Carver, Schier and Weintraub (1989). The scale was designed to examine the coping technique device used by an individual experiencing stress. It is a 28 item scale and uses summated rating with 4 response choices ranging from, 1 usually don't do this at all (1) to usually do this (4). The authors reported reliability co-efficient of 0.82 for the scale. The scale was dichotomized into problem-focused coping which included (active coping, planning, suppression of competing activities, instrumental support, emotional support, self-blame and positive reinterpretation) and emotion-focused coping which included (acceptance, mental and behavioral disengagement, denial, ventilation, religion, humor and substance use) (Ben-Zur, 2005). The scale was revalidated and reported Cronbach alpha of 0.77 and Guttman split reliability of 0.80. Scores above the mean was considered as high scores on the scale while scores below the mean indicated low scores on the scale. Sample items include, "I have been concentrating my effort on doing something about the situation I am in; I have been trying to come up with strategy on what to do; I have been accepting the reality of the fact that it happened."

Section F: Assessment of social support. Social support was measured by a Multidimensional Scale of Perceived Social Support (MSPSS) developed by Zumet, Dahlem, Zumet& Farley (1988). The scale was designed to measure amount of social support a person perceives that she has received from family members, friends and significant others. It has 12 items with an internal consistency and co-efficient apha of 0.91. The reliability co-efficeint alpha of 0.87 and the Spearman Brown Split-half Co-efficient alpha were reported by the authors. The format is summarized rating response choices from 1 (very strongly disagree to 7 (very strongly agree). The scale has two levels of scores; high and low. Scores below the norm indicated low social support and socres above the norm indicated high social support. The scale was revalidated by the researcher for this present study. Cronbach alpha of 0.87 and Guttman Split-half reliability of 0.78 were obtained. Sample items include, "there is a special person

who is around when I am in need; my family really tries to help me; I can count on my friends when things go wrong."

Section G: Assessment of Perceived Cultural Practices. Cultural practices leading to VVF was assessed on a 15-item scale developed by the researcher. The cultural practices scale was designed to assess the perception of socio-cultural factors that may likely cause VVF in the Northern part of Nigeria. The items on the cultural practices scale has summated rating format with response choice ranging from strongly agree (5) to strongly disagree (1), so that, higher scores indicated higher perception of cultural practices on the scale, while lower scores indicated lower perception of cultural practices. Sample items include, "In my culture, women are encouraged to have delivery in the privacy of their homes; in my culture, girls should be circumcised; in my culture, girls are given out in marriage at a tender age."

The scale was developed within the Nigerian context by generating 23 items through literature searches and interviews that inquired about cultural issues that may cause VVF. Eight experts evaluated the content validity of these items and as a result, the pool was reduced to 18 items. The 18 items were subjected to item total correlation analysis using the Lawshe (1975) minimum content validity ratio (CVR) of 0.40; $P<.05$, outcome of this activity led to the cancellation of 3 items from cultural practices scale because they loaded below 0.40 criteria. The 15-item version was fielded in a sample of 102 participants. Factor analysis showed that most items loaded on a single factor, resulting in the 15-item perceived cultural practices scale. The researcher obtained an alpha co-efficient of 0.79 and Spearman Brown Split-half reliability of 0.77 for the scale development stage. In the present study, the Cronbach's alpha for the scale was 0.88.

Results

Table 1: Descriptive Statistics showing the demographic characteristics of participants in survey study.

Variable	N	%	X	SD
Age				
15-40 years	220	76.1	21.45	2.48
41-70	69	23.9	53.21	8.06
Religion				
Christianity	73	25.3	29.82	11.7
Islam	209	72.3	36.69	7.71
Others	7	2.4	9.21	3.99
Marital Status				
Single	53	18.3	24.50	3.65
Married	172	59.2	69.25	17.40
Divorced	64	22.1	30.60	7.38
Educational Qualification				
Non-Formal Education	126	43.6	78.21	8.10
Primary School	103	35.6	97.15	9.18
Secondary School	56	19.4	68.71	7.16
NCE/ND	4	1.4	8.32	3.20
Socio-Economic Status				
High	33	11.4	36.34	7.69
Medium	76	26.3	39.32	8.70
Low	180	62.3	89.43	11.5
Ethnicity				
Igbo	15	5.2	7.82	2.89
Yoruba	14	4.8	6.79	3.10
Hausa/Fulani	260	90.0	69.57	11.48

Table 2: Summary of zero-order correlation matrix showing the interrelationships among variables in the cross sectional study.

	1	2	3	4	5	6	7	8	9	10	11	12			
VAR	PHYH	PSYH	SOCH	ENVH	OPT	SE	PFC	EFC	PSS	CP	HRQoL	QoL	MEAN	SD	N
PHYH	-												20.36	6.54	289
PSYH	.604**	-											17.48	3.86	289
SOCH	.427**	-.366**	-										5.58	3.08	289
ENVH	-.277**	.300**	-.338**	-									23.36	6.13	289
OPT	.380**	-.006	.445**	-.080	-								26.17	3.47	289
SE	.191**	.197**	.105	.032	.225**	-							33.58	10.75	289
PFC	.581**	.511**	-.195**	-.067	.150*	.412**	-						32.22	7.73	289
EFC	-.069	-.533**	.595**	-.564**	.218**	.471**	-.002	-					32.63	7.44	289
PSS	.575**	.604**	-.147*	.140*	.064	-.017	.639**	-.484**	-				32.60	10.52	289
CP	.457**	.518**	-.307**	.260**	-.086	-.107	.655**	-.638**	.872**	-			37.55	12.54	289
HRQoL	.575**	.813**	.008	.403**	.282**	.226**	.606**	-.431**	.681**	.688**	-		71.70	12.24	289
QoL	.219**	.356**	-.375**	.221**	.468**	.082	.531**	-.374**	.499**	.595**	.489**	-	4.98	2.96	289

Key **P<.01, *P<.05

PHYH = Physical Health, PSYH= Psychological Health, SOCH = Social Health, ENVH = Environmental Health, OPT = Optimism, SE = Self-efficacy, PFC = Problem Focused Coping, EFC = Emotional Focused

Coping, PSS = Perceived Social Support, PCP = Perceived Cultural Practices, HRQoL= Health-Related Quality of Life, QoL= Quality of life.

Table 2 showed that there is positive significant relationship between optimism and health-related quality of life (r=.382). Also, positive significant relationship is reported for Self Efficacy and Health-Related Quality of Life (r=.226). The same positive significant relationship is also reported for Perceived Social Support and Health-Related Quality of Life (r=.681) and Cultural Practices and Health-Related Quality of Life (r=.668). As for Coping, Health-Related Quality of Life is significantly positively related to Problem-Focused Coping (r=.606) and significantly negatively related to Emotion Focused Coping (r= -.431).

The results also showed that there is no significant relationship between Optimism and Psychological health (r=-.096), Optimism and environmental health (r=-.030). Self-efficacy is not correlated with social health (r=.105) and Self-efficacy and environmental health (r=.032). Problem focused coping is not correlated with environmental health (r= -.067) while emotion focused coping is not correlated with Physical health (r=-.069). Perceived social support is significantly correlated negatively with social health (r=-.147). Perceived Social Support is also significantly correlated positively with environmental health (r=.140).

Table 3: Summary of multiple regressions showing the influence of coping strategies (emotion focused and problem focused), perceived social support, self-efficacy, optimism and perceived cultural practices on health-related quality of life.

Variable	R	R^2	F	P	B	T	P
Coping							
Problem-focused					.15	2.73	<.01
Emotion-focused					-.45	-8.93	<.001
Social Support					.26	3.98	<.001
Self-efficacy					.31	7.54	<.001
Optimism					.37	11.59	<.001
Perceived Cultural Practices	.56	.31	38.11	<.001	-.11	1.29	>.05

The result in Table 3 shows that coping strategies (problem focused and Emotion Focused), Social Support, Self-efficacy, Optimism and Perceived Cultural Practices jointly predicted Health-Related Quality of Life among VVF patients ($R=.56$, $R^2= .31$; $F(6,282)=38.11$; $P<.01$). This implies that Coping Strategies (problem-focused and emotion-focused), Social Support Self-efficacy, Optimism and Perceived Cultural Practices jointly accounted for 31% variance in Health-Related Quality of Life while the remaining 69% could be attributed to other variables not considered in this study. This indicated a significant percentage of contribution of these predictor variances in Health-Related Quality of Life exhibited in the population of the study. Furthermore, the analysis of the independent predictions indicated that Problem-focused Coping ($\hat{a}=.15$; $t=2.73$; $p<.01$), Emotion-focused Coping ($\hat{a}= -.45$; $t= -8.93$; $p<.001$); Social Support ($\hat{a}=.26$; $t=3.98$; $p<.001$); Self-efficacy ($\hat{a} = .31$; $t=7.54$; $p<.001$), Optimism ($\hat{a} = .37$; $t=11.59$; $p<.001$) significantly independently predicted Health-Related Quality of Life among VVF patients. However, the analysis of the independent prediction also indicated that perceived cultural practices did not predict health-related quality of life ($\hat{a} = .11$; $t=1.29$; $p>.05$). The implication of these results is that all the variables (coping strategies, social support, self-efficacy, optimism) except perceived cultural practices were important predictors of health-related quality of life among VVF patients' population.

Discussion

Findings indicated that coping strategies (emotion focused and problem focused coping), perceived social support, pain self-efficacy, optimism and perceived cultural practices jointly predicted health-related quality of life among women with VVF. This finding supports the first hypothesis. This finding is not surprising because of the expectation that people with different positive psychological qualities or dispositions should have increase in their quality of life, indicating a growing interest for psychosocial aspects that are positive in enhancing quality of life of people with chronic diseases. Previous studies evaluating other psychosocial factors such as coping strategies, the extent of social support, self-efficacy and level of optimism in daily life showed positive influence on patients' health status (Hjortswang et al. 2003; Janke et al. 2005). However, the

independent prediction showed that perceived cultural practices was the only variable which was not significant on health-related quality of life among women with VVF. This showed that perceived cultural practices contributed less to the health-related quality of life but its contribution was not significant enough to have independent prediction on health-related quality of life. All other psychosocial variables had contributed more, and their contributions were significant enough to have independent prediction of health-related quality of life.

The result of independent prediction of coping strategies on HRQoL indicated that VVF patients managed the demands of the person-environment relationship that were appraised as stressful. Each individual used different types of coping strategies to manage her stressful situation depending on appraisals. Some studies are in agreement with this finding. Some of these studies investigated the interactions between the concepts of stress, coping strategies and quality of life among parents of children with autistic disorder (Dabrowska&Pisula, 2010; Smith, Seltzer, Tager-Flusberg, Greenberg & Carter, 2008), links between the types of coping strategies used by the parents and their levels of stress and quality of life were revealed. It was inferred from these studies that parents who are able to develop effective coping strategies are likely to experience satisfactory levels of quality of life and wellbeing and functional levels of parenting stress. The result also indicated that VVF patients made use of problem-focused coping for the improvement of their quality of life. This showed that VVF patients looked for every avenue to manage their conditions (Balogun, 1995; Panthee et, al., 2011).Coping strategies especially emotion-focused coping showed that women with VVF coped through non-effective social measures including hiding from the general public and avoidance. This indicated that they are responsible for their own state of good life. The reason for this could be the desperate attempts by women with VVF to maintain hygiene and to minimize the effects of VVF. This was in agreement with some studies (Lindqvist et al. 2000; Kristofferson et al. 2005). In particular, active problem-focused strategies were associated with positive outcomes. Meanwhile, the reliance on passive, avoidant coping strategies was associated with negative outcomes.

The finding of independent prediction further indicated that social support independently and significantly predicted health-related quality of

life, meaning that the level of social supports received by the VVF patients from family, friends and governments go a long way in determining the outcome of their quality of lives. The result also indicated that the social network of an individual affects one's ability to cope with the challenges presented by life experiences. One encouraging thing about social support is that Gore (1978) considered it as serving a coping function since it sometimes helps keeping emotions associated with illness at bay. Being isolated or lacking any social stimulation at all also does not promote social coping skills (Brink 1997). In the same view, previous studies have demonstrated that heightened social support can improve health-related quality of life of persons with illness (Yanos, Rosenfield & Horwitz, 2001). The result of the correlation analysis shows that satisfaction with social support was significantly correlated with quality of life. Also social support is associated with quality of life in one's day to day living in the absence of stress and in times of stress with more support related to enhanced well-being (Marinelli and Plummer, 1999) This finding support those found in previous studies, which shows that social support was significantly correlated with quality of life (Hirabayashi et al. 2002, Xiong et al., 2010).

The finding also demonstrated that self-efficacy independently predicted health-related quality of life. The result showed the importance and critical role of self-efficacy on improving health-related quality of life. This means that VVF patients with strong sense of efficacy would determine their health-related quality of life and well-being i.e. they would see their problems as a challenge to be mastered rather than threat to be avoided. It should be noted that self-efficacy influences the patients' adoption of healthy behaviours, the cessation of unhealthy behaviours and the maintenance of behavioural changes in the face of challenge and difficulty. Lack of perceived control over environmental demands can increase susceptibility to diseases such as VVF and hasten the progression of diseases (Bandura 1997). Self-efficacy is seen as a personal resource particular to each subject (Bandura, 2001). This is supported by Cunningham, Lockwood and Cunningham (1991), they reported in a heterogeneous sample of cancer patients that self-efficacy correlated positively with quality of life and mood. In addition, enhancing self-efficacy belief is crucial to successful change and maintenance of virtually every behaviour crucial to health including stress management, safe sex,

compliance with treatment and prevention regimens, and disease detection behaviours such as urological issues (Bandura 1997; Maddux, et al 1995).

Optimism independently predicted health-related quality of life which indicated that the way VVF patients think optimistically about their health might actually impact how healthy they are. The attitudes of VVF patients may influence their life satisfaction. Analysis of optimism provided insights as to how VVF patients perceived and attended to obstacles within the context of their lives (Seligman, 1990). For example, research has shown that optimists are healthier, make better life choices and live longer than pessimists (Seligman, 1998). Likewise previous research examining the relationship between optimism and life satisfaction among patients with renal disease, found that all participants had good optimism that was positively related to their life satisfaction (Lin, Chiang and Liu 2010), suggesting that having a positive life orientation can affect QoL satisfaction. Optimism people have a tendency to expect positive and good future outcomes and events in contrast to pessimists, who expect bad or unacceptable outcomes or experiences (Carver and Scheier, 2001).Finding of this study also supported earlier findings that had established the link between optimism and improved physical health (Kivimaki, et al, 2005; Kamran, 2014).

Concerning the negative effect perceived cultural practices has on health-related quality of life, the findings demonstrated that the cultural practices that are harmful had significant impact on the quality of life of girls and young women through female genital cutting, unwanted pregnancy, child marriage and activities of traditional birth attendants. This was in agreement with the findings of Ojua, Ishor and Ndom (2013); who carried out their research on African cultural practices and health implications for Nigeria rural development. Corroborating the result of this study, Derrah and Froude (1975) averred that 40% of the patients attending Zaria hospital (Nigeria) with VVF were victims of *gishiri* cuts. Similarly, Tahzib (1983) substantiated this study by asserting that 1443 VVF patients at the Ahmadu Bello University Teaching Hospital, Zaria, between January 1969 and December 1980 had also received *gishiri* cuts. Earlier, Murphy (1981) buttressed the finding of this study by emphasizing that the plight of these unfortunate patients could be so devastating and dehumanizing that even when cured after surgery some of them never regained their quality life.

On early child marriage which is another harmful cultural practice, Nwosu (2008) averred that for reproduction to occur, the girl child was given out at a very young age; she was not allowed to mature fully to understand her desires and goals in life before being forced into marriage. The cultural practice of early child marriage is a threat to women's quality of lives, Tahzib (1983) showed that 5.5% (80) of VVF sufferers were less than 13 years of age. Murphy (1981) further averred that the tear from the contractions of the pelvic muscles due to the inadequacy of the pelvic muscles of these teenage mothers leads to prolonged obstructed labour and trauma during delivery.

Conclusion

This study has established some important variables that were found to improve health-related quality of life among women with VVF in Nigeria. The results showed that coping strategies (emotion focused and problem focused coping), social support, self-efficacy, optimism and perceived cultural practices jointly predicted health-related quality of life while independent predictions indicated that all these independent variables except perceived cultural practices predicted health-related quality of life among women with VVF in Nigeria. Coping strategies (emotion and problem focused coping), social support, optimism and self-efficacy were found to play important roles in improving health-related quality of life of women with VVF. If attention is paid to developing these positive attributes that people possess, they will be able to address other vital areas of their lives. This research work is based on the premise that people have many positive qualities that are sometimes overshadowed by their depression, anxiety etc. This research work showed that instead of focusing on the person's pathology, positive psychology variables identified should be considered to deal with the problem.

Perceived cultural practices was not found to improve health-related quality of life among patients with VVF. This findings showed that the cultural practices in the North such as "Gishiri cut", early girl child marriage, female genital mutilation etc. affected their health and also affected all aspects of life including social relationships, cause physical disability and psychological problem.

Recommendations

Based on the findings of this study, the following possible recommendations are made

1. Positive psychology qualities of self-efficacy, optimism, social support, and coping strategies should be taken into consideration when patients with VVF are undergoing treatment because they play major roles on improving health-related quality of life of the patients.
2. Traditional Birth Attendants are very central to the issue of VVF. Since it is a cultural issue, government should make provision for training for TBAs to ensure that they understand complications that occur at pregnancy and know how to handle patients in hygienically acceptable way.
3. Many of the available researches have focused on women with VVF and paying little attention to the main culprits of VVF (i.e. Men). It is suggested that future research should focus on the husbands of these women with VVF. Also the influence of health personnel on patients with VVF should be looked into.
4. The need to recognize the risks and dangers of some cultural practices as identified in this study is also of importance. There should be an attempt at increased research efforts towards curbing the cultural and environmental factors responsible for these dangerous practices and consequently the VVF scourge.

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