

Knowledge and quality of life in female torture survivors

Building health-related knowledge and quality of life through hHealth promotion and empowerment strategies among female expatriate torture survivors

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Abstract

Background

Immigrant women represent disadvantaged and vulnerable members of the torture survivor population. They tend to be isolated and have negative coping strategies resulting in poor health and well-being. The purpose of this pilot study is to develop and evaluate an educational and interactive women's health-based programme using health promotion and empowerment strategies, with the intent of using the knowledge gained to contribute to an ongoing women's health programme.

Methods

A one-group pre-test to post-test design was used with weekly intervention sessions over six weeks, with final evaluation on week seven. Topics covered included nutrition, exercise, healthy cooking, medications, personal and dental hygiene, women's health, and birth control. Achievement tests for health-related knowledge were developed by the principal investigator to match the content of each session. Tests were given before and after the session on weeks one through six, and tests on all content modules were repeated one week after the conclusion of the programme. The short version of the World Health Organization quality of

life scale (WHOQOL-BREF) was administered at the start of the first session and at the conclusion of the programme.

Findings

Participants' WHOQOL-BREF scores improved significantly from the beginning to the end of the programme. Improvements in achievement scores from pre to post test for each session and from pre-test to the follow-up test at the end of the programme were also statistically significant. Finally, the overall change from pre to post to follow-up achievement test scores was statistically significant. Observable changes in the women were also seen over the duration of the programme, adding confidence to the results and effectiveness of the intervention.

Implications

Little is currently known about health-based interventions for the vulnerable population of female torture survivors. Public health nurses and other professionals who work with this population have a unique opportunity to influence behavior change and promote empowerment in this population. The techniques employed in this study can be used by public health nurses as a basis for designing women's health-based programmes at other torture treatment centres throughout the world.

Key words: health knowledge, attitudes, practice, public health nursing, quality of life, torture survivors, vulnerable populations, women

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Background

Female survivors of torture who have fled to a new country represent a particularly disadvantaged segment of the world's immigrants, especially if their legal status is not secure. Female survivors are coping with a combination of post-torture sequelae, economic and legal stresses, and adaptation to a new culture. Their health and the health of their families can suffer significantly as a result. This study describes a public health nursing intervention to improve health-related knowledge and quality of life for a group of female survivors of torture.

Torture is governed by international human rights and humanitarian law and even though it is prohibited it is still practiced in over half of the world's nations.¹ Campbell² states that human rights groups report the use of torture as an epidemic, especially with the current state of world events. The worldwide prevalence of torture is difficult to estimate, but the rate among refugees alone has been found to be around 5-35%.³ Further, it is estimated that the number of torture survivors in the United States has reached well over 500,000.²

Up to this point, many rehabilitation programmes have focused their efforts on providing a strong mental health and social support system. Unfortunately, they are weak or non-existent in the health care arena. Because health can affect all aspects of a person's life, more treatment programmes are needed to address the health care needs of torture survivors.⁴ This is especially true for torture survivors in the United States, where a lack of universal health care and difficulties related to survivors' legal status can lead to a decline in their health and overall well-being.

Women survivors of torture

Women are just as likely as men to experience torture, as changes in warfare and

terrorism have caused torture to spread to vulnerable members of the community.⁵

Women who are exposed to torture are at greater risk of experiencing organized and gender-based violence, including rape.⁴ This factor contributes to the fact that of the torture survivor population, women as a whole can be particularly vulnerable. Because women torture survivors are poorly prepared for the risk of torture, they tend to have a greater amount of psychiatric problems and ineffective coping mechanisms as compared to males who have experienced similar torture. In addition, fear and shame from their experiences can persist, giving rise to isolation once they relocate.^{4, 6} All of these factors can play into the fact that women torture survivors can have a greater number of social problems, negative coping strategies, and experience the impact of fewer resources for their livelihood as compared to their male counterparts.^{5, 6} In addition, because humiliation from the torture itself can be ongoing, female survivors often have a harder time adapting to new and unfamiliar environments. These factors can impact all facets of their lives and can worsen existing physical and mental health problems, which in turn can affect women's overall long term survival and potential.

A community assessment conducted in 2008 by the Rocky Mountain Survivors Center (RMSC), the agency where this study took place, highlighted the special needs of women who are both new immigrants to the community and survivors of extreme trauma. Community participants remarked on the difficulty that immigrant women had in learning English if they remained at home to care for their children. Other women struggled to adjust to new roles as the family's economic provider. Women who customarily wore clothing that was unusual in the United States, such as

Islamic headscarves, felt uncomfortable in public and workplace settings. These linguistic, social, and cultural differences contributed to women's sense of isolation.⁷

Programme for women survivors of torture

Because women survivors of torture tend to suffer the most from the standpoint of isolation, dependence, and lack of acculturation, the aim of this project is to discover whether a women's health-focused programme directed by public health nurses could help to break the cycle of isolation and promote empowerment, independence, and adaptation. The program used health promotion and empowerment strategies that follow the current trend occurring in the health care arena, shifting from caring for disease to creating and maintaining good overall health. Health can be defined as a resource for everyday life, and can be measured holistically in terms of physical, social, and mental components, as well as health-related practices and resources for living.⁸ The World Health Organization (WHO)⁹ recognizes a need for more programmes that empower and encourage individuals, families, and communities to enhance their health and reduce their risk of acquiring non-communicable diseases. Health promotion techniques are geared to help individuals gain control over their health and environment by providing information and support to enhance their life skills.^{10, 11} Additional goals identified for health promotion include improving the health of people, respecting their diversity and maintaining dignity, as well as closing the inequality gaps in healthcare.¹² This type of programme is vital to the health and well-being of women torture survivors, as their current situation is not conducive to healthy living and health promotion strategies may aid in bridging this gap.

Another key component of current ap-

proaches to health promotion that can benefit female torture survivors is empowerment. Empowerment is defined by the United Nations High Commissioner for Refugees¹³ as "a process through which women and men in disadvantaged positions increase their access to knowledge, resources, and decision-making power, and raise their awareness of participation in their communities, in order to reach a level of control over their own environment." Research with torture survivors has shown that use of empowerment models has the greatest impact on improving the health and well-being of those affected.¹⁴ A high level of empowerment will be difficult to obtain unless trust among the survivors is regained, illness is stabilized and prevented, and symptoms from their negative experiences are reduced. Treatment programmes that focus on both a medical and psychological approach empower torture survivors by enabling experiences to be shared, allowing for the reprocessing of negative experiences and promoting active engagement in living a new life.⁴ Furthermore, these programmes can give torture survivors an increased sense of control and enhance relationships, interactions, and communication abilities. These changes can in turn decrease survivors' psychological symptoms and improve their overall health.¹⁵

The goals of health promotion for immigrants are numerous and aim to promote strength and enable their ability to play an active role in building a better life for themselves and their families.¹⁶ According to Anderson and McFarlane¹⁷ health promotion does not involve doing things for or to individuals, but rather doing things with them. Nurses have a unique opportunity to influence change and promote empowerment through health promotion programmes. The core of nursing, the nurse-patient relationship, brings trust and understanding, as well

as a holistic view of health. Because nurses perform diverse roles in multiple settings and interact with colleagues from a range of other disciplines, they are well-positioned to understand the complex issues inherent in health promotion. In addition, nurses are trained to understand differences and needs across individuals and communities.^{18,19} In view of these general nursing competencies, Pender's nursing-based health promotion model was used to guide the development of a programme for female torture survivors.

Pender's health promotion model, which began to appear in nursing literature in the early 1980's, was revised in the 1990's to incorporate three new variables, including activity-related affect, commitment to a plan of action, and competing demands and preferences. The model takes into account individuals' past experiences (which could include experiences of torture) and allows for flexibility so that individuals may choose to modify some aspects of their health, while others may not change. The model suggests that health-promoting behavior results from perceptions of self-efficacy, benefits, barriers, and activity-related affect. Individuals who choose to change their health behavior benefit from commitment to a plan of action, and must address competing demands and preferences that would interfere with healthy behavior. Pender's model as a whole provides a guided framework that is applicable to the female torture survivor population and includes a strong focus on self-efficacy, which was also a core component of the planned programme. In line with Pender's model, the female torture survivor health promotion programme's overall goal was to improve women's health-promoting behavior, with the expectation that improved health behavior would positively impact all aspects of women's livelihood, including their health, functional ability, and quality of life.²⁰

Design and methods

Study design

A pilot project was designed to test a women's health-based programme as the basis for a proposed long-term intervention at RMSC, which is one of 25 torture treatment centres in the United States and is located in Denver, Colorado. RMSC offers multidisciplinary professional services to survivors of torture and war trauma and their families. The professional services include public health nursing, therapeutic counseling, social services, and legal counsel. RMSC programme planning does not distinguish between primary and secondary survivors, nor between the various types of trauma suffered by the clients. This study grew from an informal women's health education group which had been conducted under the auspices of the public health nurses. This pilot study used a prospective, one-group pre-test to post-test quasi-experimental design. The intervention was delivered to female torture survivors in a group format, with six sessions completed at a rate of one per week, plus a final wrap-up session.

Participants

Nine female torture survivors were recruited, with inclusion and exclusion criteria based on the commonalities of women torture survivors who have been exiled from their home country, characteristics common among RMSC female clients. The inclusion criteria were: age greater than 18 years but less than 70 years; female gender; primary, secondary, or war trauma survivor; asylum seeker or refugee; lacking serious health problems that would limit participation in proposed activities; and a RMSC client or member of the immediate community. All of the women who participated had been directly exposed to torture, either having been victims themselves or having family members

who were victims or lost to torture. Some of the torture experienced included beatings, imprisonment, and sexual assault. In addition, many of the women came from war torn countries, and thus had been exposed to war trauma as well. Demographic data collected from all participants are presented in Table 1. Participant recruitment was done by personal or telephone invitation among women who participated in a prior needs assessment at RMSC, as well as additional referrals from RMSC staff members. Ten women initially consented to participate, with one participant dropping out before the first scheduled group session due to unknown reasons.

Procedure

This pilot project was approved by the Colorado Multiple Institutional Review Board. Informed consent and privacy forms were completed by all participants before the initiation of the study. Consent forms were provided in English only. Because many of the primary languages spoken by the women are based on dialects, therefore they are often better able to read and write English rather than their native language. In addition, many of the women come from regions in Africa where English is spoken, have previously learned English, and/or are immersed in English classes at RMSC or other facilities to learn, improve, or refine their English language skills. A professional female interpreter with a well-established relationship to RMSC was used to assist with explaining and answering questions for one participant.

Programme activities conducted for the study took place once a week for a total of seven weeks. Intervention sessions were conducted on weeks one through six, with final evaluation completed on week seven. Each session was four hours in duration

Table 1. Demographic data.

Variable	Categories	n
Age	18-30 years	2
	31-40 years	4
	41-50 years	1
	51-60 years	2
Country of origin	Africa	8
	South Asia	1
Language	English primary language	2
	English secondary language	6
	Does not speak English	1
	Ability to read English	Yes
Ability to read English	No	1
	Ability to write English	Yes
Ability to write English	No	3
	Occupation in home country	Never worked
Nurse		1
Teacher		1
Laborer		1
Accountant		1
Currently employed	Yes	1
	No	8
Time in the United States	6-9 months	1
	1-1.5 years	1
	1.5-2 years	1
	2.5-3 years	4
	Greater than 3 years	2
Educational background	No schooling	2
	Grade school	3
	High school	4
	Legal status	Asylum seeker
Legal status	Refugee	1
	Health conditions	None
Hypertension/heart disease		1
Diabetes		1
Pain		3
Have children		Yes
Have children	No	1

and focused on a particular health-related topic: nutrition, exercise, cooking, medications, dental and personal hygiene, women's health, and birth control. The topics were chosen based on the needs identified by the women who had participated in the earlier groups and the recommendations of the public health nurses familiar with the health concerns of the population. The sessions were conducted in English, with an

interpreter again available to interpret for one participant in her native language. Participants were given a reminder call the day prior to the session to decrease the chance of attrition. A van was rented to transport the women to the location of the intervention sessions, and childcare was provided at the facility by volunteers.

Intervention description

Group meetings for the session occurred at a rental facility adjacent to a large public park approximately five blocks from RMSC. Groups were led by the principal investigator, with additional assistance provided by public health nurses and study volunteers from RMSC. After arriving at the rental facility, participants completed the week's pre-test evaluation. To start the intervention session, group stretching was done to promote relaxation and physical activity. The group stretching consisted of basic exercises for the legs, arms, shoulders, and back, as well as deep breathing exercises typically utilized in meditation. The stretching was led by the principal investigator and volunteers, and by the end of the programme several of the women in the programme volunteered to lead the sessions. The stretching exercises occurred either in the park or inside the rental facility if there was poor weather. The educational session took place after the stretching and calming exercises, and, if applicable, the group proceeded off-site for an educational and interactive intervention (see Table 2). Upon completion of the intervention, the post-test evaluation was administered. A meal was then provided, with time to socialize and debrief before conclusion of the session.

Education was completed at the rental facility and the intervention site (if applicable). Handouts and visual aids were used to facilitate visual learning, as well as to

promote the women taking an active role in their learning. The curriculum for the intervention and related handouts were acquired from reputable health-related sources, including the U.S. National Institutes of Health, the U.S. Centers for Disease Control and Prevention, the U.S. Department of Health and Human Services, the U.S. Food and Drug Administration, and Planned Parenthood Federation of America. A sample of the outline used for the dental and personal hygiene teaching curriculum is provided in Appendix A. Handouts were also developed for each session, and are available from the first author upon request.

During each session, participants were given useful products relevant to the topic of the session to which they have limited access. For example, these products included grocery gift cards, athletic shoes, pedometers, cookware, thermometers, medication organizers, and hygiene products. These products helped to promote continued interest in the programme, and also enabled participants to put their new skills into the practice of their daily lives. These products were either acquired through donations or purchased, allowing up to \$25 (U.S.) spent per participant per session on these products.

Measures

Participant demographics: Demographic data were collected at the beginning of the first session. Participants filled out a demographic form, with an interpreter used for one non-English-speaking participant. Of particular note, there were four women in the programme who did not identify any pre-existing health issues. Because the goal of the programme was to improve overall health and prevent disease for those with and without health issues, women with a range of health status were included. In addition, it was decided that the women would

Table 2. *Topics, sites, and content used for the intervention sessions.*

Week	Topic	Location	Conducted session	Content
1	Nutrition	Local grocery store and rental facility	Principal investigator, who is a doctorally prepared nurse	Reading food labels, introduction to unfamiliar foods, the components that make up a healthy diet, portion control, weight control or weight loss, and meal planning
2	Exercise	Local park and rental facility	Principal investigator, who is a doctorally prepared nurse	How to incorporate low-to-moderate exercise into daily life, how much exercise is needed to maintain or lose weight, and the various types of exercise that can be done outdoors or indoors
3	Cooking	Rental facility which had a commercial kitchen	Principal investigator, who is a doctorally prepared nurse	Preparing inexpensive meals with food that the women have access to, including food obtained at RMSC or at local food banks
4	Medications	Rental facility	Principal investigator, who is a doctorally prepared nurse	Understanding over-the-counter, vitamin, and herbal medications, and how to read medication labels on prescriptions
5	Dental and personal hygiene	Rental facility	A local dentist conducted the dental component of the session, personal hygiene teaching conducted by the principal investigator	How to maintain adequate dental hygiene, personal hygiene standards in the U.S., and use of products to help maintain hygiene
6	Women's health and birth control	Rental facility	Women's health and birth control teaching conducted by the principal investigator, with teaching about sexually transmitted infections conducted by the Director of Health Care Services at RMSC, who is a doctorally prepared nurse	Gynecological health, birth control options, and how to prevent against sexually transmitted infections

not be asked about their psychological health because this was not the focus of the study, as well as the fact that the majority of the women were in other programmes at RMSC to support their psychological health. However, some items from the demographic information collected, such as their educational background, current working status, and legal status, can bring insight into the types of stresses that can affect the everyday lives of immigrants settling in a new country.

Quality of life: A quality of life scale was

chosen as this study's primary outcome measure because this construct represents a subjective measure of well-being that includes the physical and spiritual domains, as well as the accomplishment of life goals. Quality of life is a construct used by many disciplines, and health is an important dimension of quality of life.²¹ The brief WHO Quality of Life scale (WHOQOL-BREF) was completed by participants at the initiation of the first session and again at the completion of the programme. The WHO-

QOL-BREF is a 26 item short version of the 100 item WHOQOL scale, both of which were developed in the 1990's with the aim of creating a cross cultural quality of life assessment instrument. The WHOQOL and WHOQOL-BREF scales were developed with the expectation that they would be utilized to measure changes in quality of life resulting from interventions for a broad range of conditions and settings. This would in turn allow for comparison across multiple centres and cultures, giving increased confidence in the findings. The components of the WHOQOL-BREF scale are physical health, psychological health, social relationships, and environmental factors.²² Validity was demonstrated in a study by the WHOQOL Group,²³ which found that WHOQOL-BREF domains were representative and relevant for quality of life across several cultures. Permission to use this tool was obtained prior to initiation of the study.

The WHOQOL-BREF was available in English and French but all participants chose to complete the English version. Although the WHOQOL-BREF has four subscales, participants' scores were averaged across subscales for both the pre and post intervention measurement points in order to reduce the number of statistical tests performed with the small sample in this pilot study. Reliability (Cronbach's alpha) for the WHOQOL-BREF in the current study was $\alpha = 0.83$.

Health-related knowledge: To increase confidence that any observed changes in quality of life were in fact related to the intervention, participants' knowledge about relevant health-promoting behaviors was also tested immediately before and after each group session, and again at the end of the six-week intervention. Health-related knowledge was tested through multiple choice tests containing five items each, with four possible

answers for each question. Six achievement tests were developed by the principal investigator, one for each of the topics covered in the group intervention. Existing and pre-tested instruments on these topics either could not be found or were too complex for the English language skills of the target population. The achievement tests were provided in English and study volunteers helped women who had difficulty reading English to understand unfamiliar language. Because of this pilot study's small sample size, all six knowledge-based achievement tests were combined into a single 30-item measure, with observations at pre-test, post-test, and the week seven follow-up session. This 30-item achievement test showed acceptable internal consistency reliability, with $\alpha = 0.78$ in the current study.

Data analysis

Descriptive and inferential statistics were used to present the data. After calculating reliability statistics on each of the measures as presented above, distributions for participant demographics were examined. Paired two-tailed *t*-tests were then used to evaluate pre and post change on the primary outcome measure, quality of life. Repeated-measures analysis of variance (ANOVA) was used to compare participants' knowledge scores across the pre-test, post-test, and follow-up test. Each inferential test used an alpha level of 0.05, and effect sizes were estimated. Finally, a series of exploratory correlations were performed to examine possible relationships between participants' demographics and their quality of life and achievement test scores.

Results

Primary and secondary outcome measures

Participants' scores on both the quality of life and the knowledge measures improved;

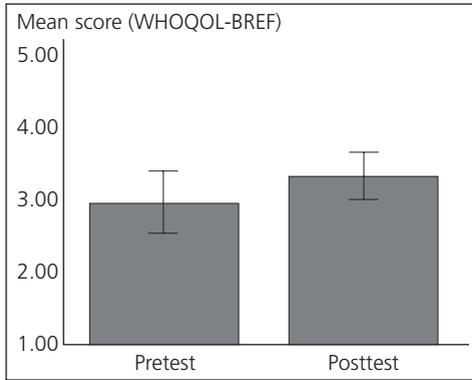


Figure 1. Change on WHOQOL-BREF. Error bars indicate 95% confidence interval for the mean.

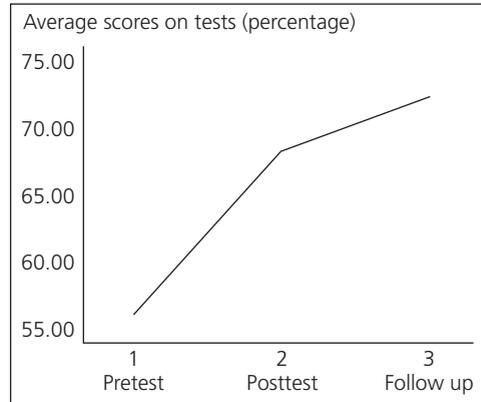


Figure 2. Data for pre, post and follow up achievement test.

these changes are illustrated in Figures 1 and 2. Participants' scores on the WHOQOL-BREF improved significantly from pre to post intervention, $t(8) = -2.92$, $p = 0.019$, representing a large effect, $r = 0.72$. Participants' scores on the achievement tests also improved significantly over the three measurement intervals, $F(2, 7) = 14.21$, $p = 0.003$, with a large overall effect size, $r = 0.79$. Post hoc tests revealed that improvements were statistically significant from pre to posttreatment, $t(8) = 3.05$, $p = 0.016$, with a large effect size, $r = 0.73$, and also from pre-treatment to the follow-up test, $t(8) = 5.60$, $p = 0.001$, with a slightly larger effect size, $r = 0.89$.

Exploratory analyses

Descriptive data were correlated with the WHOQOL-BREF and achievement pretest scores. There was a significant correlation between participants' current employment status and their WHOQOL-BREF scores. The remainder of the correlations for the demographics and either the WHOQOL-BREF pretest or achievement pretest scores were not significant (Table 3). Most of the

demographic variables had small to medium correlations to both the quality of life and achievement measures, with employment status and health conditions having the strongest relationships with participants' scores on the WHOQOL-BREF, and occupation in the participant's home country having the strongest relationship with participants' pretest knowledge scores on the achievement test. However, only one of these large effects met the criteria for statistical significance, which is likely due to this study's small sample size.

Observations

The principal investigator and additional leaders of the group sessions observed changes in the women as the programme progressed. At the initial intervention session the women were very reserved and quiet. They did not ask many questions and seemed hesitant to participate in the intervention. In addition, there was not much socialization during the shared meal. However, over the course of the programme the environment changed. The women began to actively participate in all components of the

Table 3. Correlations of demographic variables with WHOQOL-BREF and knowledge pretest data.

Demographic data	WHOQOL-BREF pretest	Knowledge pretest
Age	$r = -0.35$	$r = -0.07$
Language	$r = 0.47$	$r = 0.22$
Ability to read English	$r = 0.66$	$r = 0.28$
Ability to Write English	$r = 0.03$	$r = 0.57$
Occupation in home country	$r = 0.53$	$r = 0.71$
Current employment status	$r = 0.70^*$	$r = 0.17$
Time in the United States	$r = -0.44$	$r = 0.04$
Educational background	$r = 0.63$	$r = 0.35$
Legal status	$r = 0.49$	$r = 0.58$
Health conditions	$r = 0.84$	$r = 0.51$
Have children	$r = 0.46$	$r = 0.13$

*) $p \leq 0.05$

programme. As mentioned, several of the women volunteered to lead the stretching and calming exercises. During the intervention sessions, the women began to ask questions and relate their past and current experiences to what was being taught. Active engagement was a very helpful component of the programme, as it helped to clarify cultural misconceptions that could hinder the participant's adaptation to a new environment. The shared meal also became a time for stories and laughter, even in the mist of their current struggles. Finally, not only were significant results found with regard to the evaluation outcomes, but observable health-related behavioral changes were noted over the course of the programme as well. As hoped, there was evidence that the women did use the knowledge that they learned by incorporating the products that were given

into their everyday lives. For example, the week following the exercise class several of the women were wearing their athletic shoes and pedometers, and showed the group their log of the number of steps they had taken for the week. These observable changes in the women over the duration of the programme add confidence to the positive assessment and effectiveness of the intervention.

Discussion

The goal of this pilot study was to increase both health-related knowledge and quality of life through the use of health promotion and empowerment strategies, and the results demonstrated that these goals were achieved. Programme participants showed statistically significant improvements on both the knowledge and quality of life measures after completion of the programme. In addition, in an informal debriefing session at the end of the intervention all of the women stated that they enjoyed the programme, enjoyed being around the other women, learned something from the programme that they will use in their everyday life, will teach their knowledge to family and friends, would like to participate in an ongoing women's health programme, and would recommend the programme to family members or friends. In addition, eight of the nine women stated that they had formed friendships with the other women in the group. These findings suggest that the programme environment not only provided a sense of comfort and well-being, but also improved participant's health-related knowledge.

A key component of the programme was to promote self-efficacy and empowerment among the survivors. While an examination of the longterm effects from their participation in the programme will require additional follow up, some shortterm im-

provements were observed. As mentioned, when beginning the programme, many of the women were reserved and not open to active participation in the group. However, throughout the course of the programme several of the more reserved participants began to open up, share information about their lives with each other and actively engage in participation throughout the educational and interactive sessions. These observable aspects of the programme give insight into the improvements in self-efficacy and empowerment that can be made even over the short term. Additional follow up with further continuation of the programme will allow an examination of whether self-efficacy and empowerment positively affect women's quality of life and help them maintain a commitment to improving their health over time.

Due to the cultural differences inherent in working with immigrant torture survivors who encounter multiple stresses in their new life, it is very difficult to maintain interest and commitment for programmes. As observed by RMSC staff members and the principal investigator, many prior programmes at RMSC have had a large dropout rate and inconsistency in participation. In order to discover the reasons behind the lack of attendance at prior programmes, the initial needs assessment conducted in preparation for this programme queried potential participants about barriers to their participation. Many of the women stated that they do not often participate in programmes at RMSC due to barriers such as lack of transportation, long distances to travel to get to RMSC, perceived language barriers, prior engagements, appointments, working during group session times, fear of sharing feelings with strangers, cold weather, lack of child-care, cultural beliefs and barriers, lack of interest, and lack of incentives.

The identified barriers to participation were minimized in the programme with the study design, and thus this pilot study has been one of the most successful programmes completed at RMSC so far, as evidenced by the women expressing their enjoyment with the programme and making a commitment to attend each week. There was no attrition once the programme started, which prevented missing data and also speaks to the women's level of investment in the programme. The large effect sizes obtained for both the quality of life and knowledge measures also supports the effectiveness of the intervention. Although this was a small pilot study and cannot prove that the intervention is causally responsible for the observed improvements due to the lack of a control group, the results suggest that a health-focused group intervention for expatriate female torture survivors is a feasible and potentially helpful intervention to empower these women and improve their quality of life.

Limitations

This pilot study had several limitations. First, the sample size was small. A larger sample was not feasible due to the size of the target population, the cost and complexity of the intervention, and the inability of other women at RMSC to commit to a seven week programme. Even with this small sample size statistically significant results were found; however, participant self-selection remains a threat to the validity of the conclusions drawn. Additional studies with a broader population of female torture survivors are needed to determine whether the programme described here will be helpful to other women, or if its effects are limited to those women who are already able to commit to, and participate in, a group intervention. Participant demographics in the

current study were similar to those of other female torture survivors at RMSC, but the participants still may have been different in terms of psychological characteristics such as baseline self-efficacy, extroversion, or severity of symptoms related to past torture experiences.

Another limitation is that the achievement tests represent a new data collection instrument created by the principal investigator. Creating new instruments for programme evaluation can be problematic, as there is the risk of omitting potentially important questions. In addition, the instrument's reliability and validity was not previously established.²⁴ While these risks were unavoidable for the current study, retesting of the achievement tests occurred before and after the intervention, as well as one week after the completion of the programme so that a comparison of the scores could be analyzed and trends examined. Creating new instruments was necessary due to the lack of appropriate existing tools for the population and content to be covered for the intervention. Because the achievement tests used were newly created, they have not been verified in other settings or with other populations. Preliminary evidence for the reliability of these instruments was obtained in the current study, but threats to validity include the potential impact of practice effects with the same items or with the process of taking a multiple-choice test, which may itself be unfamiliar in the participant's home cultures. Participants' continued improvement on the knowledge items from post-test to follow-up mitigates these concerns to some extent. Although practice may have accounted for some of the improvement from pre to posttest, it is unlikely to have made additional contributions to the continued improvement seen from post-test to follow-up in Figure 2.

Threats to internal validity, such as history and maturation, cannot be ruled out due to the lack of a comparison group. Polit and Beck²⁴ define history as external events that can affect outcomes, and maturation as changes occurring due to the passage of time. It is possible that the women in the study learned some of the information from external sources. However, due to the isolated environments and lack of resources typically experienced by expatriate female torture survivors, it is unlikely that history effects played a significant role. The passage of time and improvement in other areas of the women's life, rather than the intervention, could have affected results on the outcome measures, especially the quality of life scale. However, none of the women reported a large change in their life circumstances over the seven week programme. Furthermore, increased knowledge was likely not the only contributor to improved quality of life; the women's responses to questions about their satisfaction with the programme and observable changes also indicated that the group was a source of enjoyment and social support, which are other plausible mechanisms for improvements in quality of life. The existence of multiple theoretically relevant methods by which group participation may improve quality of life tends to mitigate against the interpretation that obtained improvements were due to maturation alone. Finally, there was no attrition from the programme, so missing data or differential dropout are not plausible threats to interpretation of the results.

Future research

Additional research is needed to determine whether a programme such as the one described in this article will be effective to meet the eventual goal of promoting empowerment and self-efficacy in a broader group

of female torture survivors. Although initial participants may have been more highly motivated or committed than other women at RMSC, participation of additional women in the programme may be facilitated to the extent that the participants in the first programme are able to teach their knowledge and act as change agents in their communities. Future groups might incorporate previous group participants as co-facilitators and/or as a recruitment network to encourage other female torture survivors to join the programme.

This pilot study represents the beginning step in the process, but additional, progressive interventions will be needed to meet the demands of a complete health-based programme for the vulnerable and hard-to-engage population of female torture survivors. Additional instruments may be beneficial, as the achievement tests were novel measures created for this research. While many of the women performed very well on these tests, some of the wording, such as the terms “false” and “what is not” were misperceived by several of the women. In addition, incorporation of additional evaluation instruments, such as psychological measures and long-term indicators of health, will be important to determine the effectiveness of health-based programmes aimed at female torture survivors.

Conclusion

Because the sample of female torture survivors in this pilot study was typical of the population seen at RMSC, the empowerment-based health promotion programme described in this article may be applicable to a large population of female torture survivors. In addition, because women who are refugees but may not have been exposed to torture face similar challenges, the intervention could potentially be adapted to health-

based programmes for this population as well. Further study is needed to rule out the important challenge of selection bias, and future researchers may wish to examine important psychological characteristics that were not measured in the current study such as isolation, baseline self-efficacy, and severity of symptoms related to past torture experiences.

This programme did use multiple supportive measures to facilitate the effectiveness of the intervention. However, the participants reported that not all of the incentives provided, such as meals and the extent of the useful products, were necessary to promote success of the programme. The key supportive measures identified by the women included transportation to the site of the intervention, childcare, a few samples of products to help them use what they learned in the intervention, and a safe group environment. While all of these factors may not be feasible in future programmes, the core components of the programme can serve as a guideline for future development of health and empowerment-based programmes in other populations of survivors.

This pilot study was the first step in creating an ongoing women’s health-based programme at RMSC to help in improving the overall health and well-being of female torture survivors. An additional programme at RMSC is proposed, and due to the success of this study it will be used to guide the formation of the next step in the ongoing women’s health-based programme. In addition to the methodology described and limitations that will be considered in the development, the next programme will expand on the concepts discussed, add additional health-related topics, and encourage women to take an active role in teaching some of their acquired knowledge to each other. Once this is completed, the next goal will

be to bring the women back to their communities to act as agents of change.

This programme can be used as a model for women's health-based programmes at other torture treatment centres, as there is a lack of knowledge with regard to health-based interventions for this population. The current study will not only help to advance the knowledge of treatment programmes for female torture survivors, but also serves to emphasize the contributions that nursing theory and practice can have on the promotion of health, empowerment, and self-efficacy for vulnerable populations.

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Test examples

Multiple choice knowledge-based achievement tests for nutrition, exercise, cooking, medications, hygiene and women's health and birth control were registered.

Example on nutrition and women's health and birth control are shown. Correct answers are marked with grey.

Nutrition

Please circle the one answer you think is right.

- Other than meat, what foods have protein?
 - Beans and peanut butter
 - Bananas and oranges
 - Potatoes and peas
 - Bagels and popcorn
- What is another name for sodium?
 - Sugar
 - Cholesterol
 - Fat
 - Salt
- What foods help to have strong bones?
 - Bread and cereal
 - Nuts and seeds
 - Milk and cheese
 - Chicken and fish
- On food labels, what should not be eaten that often?
 - Fats
 - Vitamins
 - Serving size
 - Fiber
- What can you do to lose weight?
 - Drink more tea with sugar
 - Eat more meat
 - Drink less milk
 - Eat less calories

Women's health and birth control

Please circle the one answer you think is right.

- How often should a pap test and pelvic exam be done?
 - Once a month
 - Once a year
 - Once every 5 years
 - Once every 10 years
- How often should you do a self breast exam?
 - Once a day
 - Once a week
 - Once a month
 - I do not need to do self breast exams
- What can you do to prevent vaginal infections?
 - Take long bubble baths
 - Wear satin underwear
 - Use vaseline and powder on the vagina
 - Wipe front to back after using the bathroom
- What birth control protects against sexually transmitted diseases?
 - Condoms
 - Birth control pills
 - IUD
 - Depo provera
- What is correct about emergency contraception?
 - Can be taken up to 1 week after sex
 - You do not need a prescription for it
 - Should be used as birth control
 - Protects against sexually transmitted diseases

Appendix A

Sample of curriculum outline

Outline for personal hygiene teaching

Maintaining good oral hygiene

- Use a fluoride toothpaste
 - Helps to prevent tooth decay
- Take care of teeth and gums
 - Tooth brushing
 - Flossing
 - Helps to prevent gingivitis (gum disease)
- Do not use tobacco
 - Increases risk of developing gum disease, oral and throat cancers, and tooth decay
 - Includes all forms of tobacco
 - Cigarettes
 - Pipes
 - Cigars
 - Chewing (spit) tobacco
- Limit alcohol intake
 - Increases risk of oral and throat cancers
- Eat a well balanced diet
 - Avoid lots of sugars and starches
 - Breads
 - Pastas
 - Rice
 - Beans
 - Crackers
 - Cereal
 - Limit snacks
 - Good snacks to eat
 - Fruits
 - Vegetables
 - Yogurt
 - Cheese
- Visit the dentist when possible
 - Helps to find problems early
 - 1-2 times per year
 - Drink lots of water
 - Prevents dry mouth
 - Avoid chewing hard candy or ice

How to brush your teeth

- Brush your teeth and gums
 - 2 times per day or after each meal
 - Place brush against your teeth at a 45 degree angle
 - Brush the outside and inside of teeth and gums
 - Brush your tongue
 - Brush by using up and down, side to side, and then in circles in short strokes
 - Brush for about 2 minutes
- Toothbrush
 - Use a soft bristled toothbrush
 - Replace every 3-4 months or when frayed
- Toothpaste
 - Fluorinated toothpaste

How to floss your teeth

- Use about 18 inches of floss
- Wrap around middle fingers
- Gently glide floss between teeth until you reach your gums
- Move floss up and around the tooth
- Use clean floss for each tooth
- Gets places your toothbrush cannot reach
- Floss every day

Mouthwash

- Use fluorinated mouthwash
- Put a small amount in your mouth and swish between your teeth
- Keep in mouth for about 30 seconds
- Spit out mouthwash
- Do not swallow mouthwash
- Gets rid of bacteria

When to see a dentist (if possible)

- Gums are red, swollen, or painful
- Gums bleed a lot
- Gums that are coming away from your teeth
- Tooth pain
- Pus in the teeth or gums
- A bad taste in your mouth
- Loosing teeth
- Sensitive to hot and cold
- Pain when eating or drinking

Common dental problems

- Plaque
 - Sticky film that forms on teeth
 - Has bacteria
 - Causes acid that rots teeth
 - Can cause tooth decay and gum disease
- Tarter
 - Hard plaque
- Cavities
 - Decayed areas of teeth
 - Causes opening or holes in the teeth
 - Caused by plaque
 - Can lead to pain, infection, and tooth loss
 - More often in back teeth
- Gingivitis
 - Damage to gums from plaque and tarter
 - Causes gums to bleed easily
 - Can lead to tooth loss

Maintaining healthy dark skin

- Cleansing
 - Clean your skin daily to remove dirt, oil, and makeup
 - Avoid abrasive products that can irritate the skin
 - Gently massage skin
 - Use products for your skin
 - Dry
 - Oily
 - Sensitive
 - Normal
- Limit time in the sun
 - Avoid the sun if possible between 10 am and 4 pm
 - When sun rays are strongest
 - Use sunscreen while in the sun
 - Spf 15 or higher
 - Apply 20 minutes before going out in the sun
 - Re-apply about every 2 hours
 - Wear protective clothing
 - Hats
 - Sunglasses
 - Avoid tanning beds
- Still at risk for skin cancer
 - 3 types of skin cancers
 - Mostly curable if found early
 - Check your skin once a month
 - Use a hand mirror to look at your whole body
 - Look in between fingers and toes
 - More often found on hands, fingers, feet, toes, nails, and mouth in darker skin individuals
 - Things to look for
 - Dark brown or black spots
 - New spots
 - Changes in old spots
- Melanoma
 - More dangerous type of skin cancer
 - ABCDEs of melanoma
 - Asymmetry (one side looks different than the other)

- Border is irregular
- Color changes or more than one color
- Diameter (size greater than a pencil eraser)
- Evolving (changing in shape or size, itching, tender, or bleeding)

Common skin conditions

- Dry skin
 - Causes
 - Not drinking enough water
 - Too much sun
 - Dry weather
 - Stress
 - Soap
 - Perfume
 - Hot baths
 - Symptoms
 - Flaky skin
 - Itchy skin
 - Cracked skin
 - Prevention
 - Avoid long hot baths or showers
 - Apply moisturizers when you get out of the shower and throughout the day
 - Use sunscreen
- Contact dermatitis
 - Causes
 - Cleansers, toners, or astringents with alcohol, propylene glycol, fragrances, or dyes
 - Moisturizers with fragrances, lanolin, dye, alcohol, or propylene glycol
 - Sunscreens with fragrances, oil, or PABA
 - Makeup with oil
 - Detergents and fabric softeners with fragrances, dyes, or preservatives
 - Symptoms
 - Burning skin

- Stinging skin
- Redness
- Itchy skin
- Prevention
 - If causing sensitivity, use fragrance and preservative free products

Maintaining healthy hair

- Clean hair and scalp
 - Wash hair every 7-14 days depending on the type of hair that you have
 - Condition after shampooing
 - If you have a dry, flaky scalp try a dandruff shampoo
 - If still dry and flaky see a doctor
- Brushing
 - Only brush hair as needed to comb or style
 - Do not over brush hair
- Combing
 - Comb when it is wet to get out tangles
 - Use a wide toothed comb
 - Combing when dry can break hair
- Heat
 - Limit heat applied to hair
 - Includes blow dryers, curling irons, or hot rollers
- Cutting
 - Trim hair every 8-12 weeks to get rid of damaged hair
- Chemicals
 - Limit chemicals in the hair
 - Do not use relaxers and hair dye together
- Hair products
 - Limit use of hair sprays, gels, or mousse
 - Decrease natural lubricants in the hair
- Tie back hair
 - During bad weather such as wind, sun, or cold
 - While you sleep
 - Sleep on soft pillows

- Well balanced diet
 - Vitamins and protein are needed for hair growth

Maintaining healthy nails

- Limit use of harsh soaps
 - Can dry nails
 - Use mild soap
- Protect from weather
 - Wind and dust
 - Cold
 - Dry
 - Wear gloves in the winter
- Use hand cream or moisturizer
 - At least 2 times per day
 - Rub into hands, feet, and nails
- Keep nails short
 - Clip long nails
 - File down shorter nails
- Keep nails clean
 - Remove dirt under nails
- Limit use of nail polish or fake nails
 - Can cause dry, easily breakable nails
- Look at nails regularly
 - Skin cancer can grow under fingernails and toenails
 - Look for ABCDEs of melanoma

Cleansing practices in the United States

- Wash all parts of body
- Shower daily or every other day, or as needed if you have been sweating or have an odor
- Wash hair enough to prevent oily hair
- Brush hair and keep neat
- Keep nails clean
- Keep toenails short
- Use deodorant for underarm odor
- Use antiperspirant for sweating in the underarm with odor
- Women shave hair in underarms and legs
- Women typically remove long hair from face

ERRATA

At page 130 of TORTURE 2009;19(2) under “5. Legal consequences: the implementation of the Court’s ruling”, there is a reference to moral damages in a bracket as \$5,000. It should have read \$500,000 (half a million dollars and not five thousand dollars).

At page 118 of the same issue the title of the author is incorrect. The author holds an LLM (Master of Laws).