

July 9, 2010



LORIANN BELFIORE
Notary Public, State of New York
No. 01BE6215043
Qualified in Suffolk County
Commission Expires: Dec. 21, 2013

Loriann Belfiore, Notary Public
Affidavit #1 of S. Stickevers
Sworn this 9th day of July, 2010
No. S-097767
VANCOUVER REGISTRY

IN THE SUPREME COURT OF BRITISH COLUMBIA

IN THE MATTER OF:

THE CONSTITUTIONAL QUESTION ACT, R.S.B.C. 1986, C. 68

AND IN THE MATTER OF:

THE CANADIAN CHARTER OF RIGHTS AND FREEDOMS

AND IN THE MATTER OF:

A REFERENCE BY THE LIEUTENANT GOVERNOR IN COUNCIL SET OUT IN
ORDER IN COUNCIL NO. 533 DATED OCTOBER 22, 2009 CONCERNING THE
CONSTITUTIONALITY OF S. 293 OF THE CRIMINAL CODE OF CANADA,
R.S.C. 1985, C. C-46

AFFIDAVIT

I, Susan Stickevers, M.D., of 79 Middleville Road, Northport, NY, 11768, USA, make
oath and say as follows:

1. I am a medical doctor and as such have personal knowledge of the facts and matters hereinafter deposed to, save and except where stated to be made upon information and belief, and where so stated, I verily believe them to be true.

2. I am a medical doctor licensed to practice in the State of New York. I obtained my medical degree from Albert Einstein College of Medicine of Yeshiva University in 1986. I completed my Residency and Chief Residency in Physical Medicine and Rehabilitation at Columbia Presbyterian Medical Center in NYC in 1990, and I am board certified in Physical Medicine and Rehabilitation and Pain Medicine. From 1990 – 1999, I practiced medicine in NYC. In 1999, I assumed the position of Chief of the Physical Medicine and Rehabilitation Service of the Northport VA Hospital. In 2001, I was named Residency Program Director and Assistant

Clinical Professor for the Physical Medicine and Rehabilitation Residency Program of the State University of NY at Stony Brook School of Medicine.

3. My medical practice in NYC has caused me to treat 18 women who were in polygamous relationships in the period from 1990 – 1999. All of these women were Muslim, living in New York, and married (as one of several wives) to Muslim men. These women are described later in this affidavit as “my polygamous female patients”. All of these women were immigrants from Pakistan or from various parts of Africa. Of all my polygamous female patients, only one gave her consent to being a polygamous (fourth) wife, despite my understanding that Islamic law requires consent for polygamous marriages from all the wives participating in the potential polygamous marriage.
4. Many of the women reported to me that their husbands went on vacation to Pakistan or Africa, and returned from their trip to announce that they had married another woman in Pakistan or Africa without the consent of their legal American spouse. Unfortunately, many Muslim polygamous marriages in NYC come about as a result of coercion as documented by National Public Radio in the following link:
<http://www.npr.org/templates/story/story.php?storyId=90857818>.
5. This is also true in the United Arab Emirates (UAE) where, according to the article attached as Exhibit “A” to this affidavit and described more fully below, the majority of Muslim men do not obtain their first wife’s consent for subsequent marriages.
6. As a routine practice in my Pain Medicine assessment of patients, I obtain psychometric testing. During the course of my treatment of women in polygamous marriages in my practice, I noted that women in polygamous marriages have higher rates of depression, anxiety, somatization, and lower self esteem than women in monogamous relationships do. As a result of my exposure to these female patients, I began to study, and continue to study, the health effects of polygamy on women in polygamous relationships.

7. I am currently the administrator for an internet study group on the effect of polygyny on women and the family. As part of my involvement in this study group, I have conducted an extensive review of literature on polygyny and its effects. As a result of my literature review, I have found that polygamy is associated with the effects listed below.
- Higher rates of depression in senior wives in polygamous marriages
 - Higher rates of anxiety in senior wives in polygamous marriages
 - Higher rates of psychiatric hospitalization and outpatient psychiatric treatment for polygamous wives
 - Higher rates of marital dissatisfaction for polygamous wives.
 - Lower levels of self esteem observed in wives in polygamous marriages.
 - Higher levels of somatization observed in wives in polygamous marriages.
 - Lower levels of academic achievement and more difficulty with mental health and social adjustment in the children of polygamous families.

The symptoms and effects described in the above paragraph are referred to below as “effects of polygamy on women and the family”.

8. All of the articles attached as exhibits to this affidavit are from refereed journals.
9. Attached as exhibit “A” to this affidavit is a research article entitled “The impact of polygamy on United Arab Emirates’ first wives and their children” by Al-Shamsi and Fulcher, which appeared in the International Journal of Child & Family Welfare 2005 / 1 46 – 55. A brief synopsis of this article is as follows: Muslim women in the United Arab Emirates (UAE) are usually not consulted when their husbands take secondary wives. Senior wives often learn of their husband’s subsequent marriage(s) from other relatives, friends, or other family members. This article also provides a synopsis of the Arabic medical literature regarding the effect of polygamy on women and children. Polygamy was reported to have negatively impacted the education, social behaviors, and sense of self-esteem of the children of senior wives in polygamous marriages.

10. Attached as exhibit "B" to this affidavit is a research article entitled "Women of Polygamous Marriages in an Inpatient Psychiatric Service in Kuwait", by Kutaiba Chaleby, MD, which appeared in the Journal of Nervous and Mental Disease, Volume 173 No. 1, pp. 56 – 58, 1985. A brief synopsis of this article is as follows: Kuwaiti wives of polygynous marriages are disproportionately represented in inpatient psychiatric institutions when compared to the general population of monogamous women, usually for treatment of depression.
11. Attached as Exhibit "C" to this affidavit is a research article entitled "Women of Polygamous Marriages in Primary Health Care Centers" which appeared in Contemporary Family Therapy, Volume 21 (3) pages 417 – 430, 1999, by Alean Al – Krenawi, PhD, an Israeli – Arab research scientist. A brief synopsis of the article is as follows: Senior wives in polygamous marriages in Israel exhibited higher levels of marital dissatisfaction and lower self esteem than women in monogamous relationships.
12. Attached as Exhibit "D" to this affidavit is a research article entitled "A Comparison of Family Functioning, Life and Marital Satisfaction, and Mental Health of Women in Polygamous and Monogamous Marriages" by Drs. Alean Al – Krenawi and John Graham from The International Journal of Social Psychiatry Volume 52(1) p. 5 2006. A brief synopsis of the article is as follows: Women in polygamous marriages showed significantly higher psychological distress, and higher levels of somatisation, phobia and other psychological problems. They also had significantly more problems in family functioning, marital relationships and life satisfaction.
13. Attached as Exhibit "E" to this affidavit is a research article entitled "Learning Achievement, Social Adjustment, and Family Conflict Among Bedouin – Arab Children From Polygamous and Monogamous Families" by Drs. Alean Al – Krenawi and Ernie Lightman, from The Journal of Social Psychology, 140 (3), pp. 345 – 355, 2000. A brief synopsis of the article is as follows: children from polygamous families had lower levels of learning achievement, and more difficulty adjusting to the school framework.
14. Attached as Exhibit "F" to this affidavit is a research article entitled "Psychosocial and Family Functioning of Children from Polygynous and Monogamous Families" by Drs. Alean Al – Krenawi and Vered Slonim – Nevo, from the Journal of Social Psychology, 148 (6) 745

- 764, 2008. A brief synopsis of the article is as follows: children from polygynous families reported more mental health and social difficulties as well as poorer school achievement.

- 15. Attached as Exhibit "G" to this affidavit is a research article entitled "The Psychosocial Profile of Bedouin Arab Women Living in Polygamous and Monogamous Marriages" by Drs. Alean Al - Krenawi and Vered Slonim - Nevo, which appeared in the journal Families in Society: The Journal of Contemporary Social Services, Jan-Mar; 89(1): 139-149, 2008. A brief synopsis of the articles is as follows: women in polygamous marriages reported lower levels of self-esteem and higher levels of somatization, depression, anxiety, hostility, paranoid ideation, more problematic family functioning, less marital satisfaction, and more problematic mother-child relationships than did women in monogamous marriages.
- 16. 17 out of 18 (94%) of my polygamous female patients scored for high levels of depression, somatization, and anxiety on psychometric testing. This is significantly higher than the prevalence of depression and anxiety I observed in my monogamously married female patients.
- 17. Attach as exhibit "H" to this affidavit is a copy of my current curriculum vitae.
- 18. I have been advised that under Rule 11 of the British Columbia Supreme Court Rules, anyone offering an expert opinion has a duty to assist the court and not to assume the role of advocate for any party. I hereby confirm that to the extent this affidavit contains any of my expert opinions, I offer such opinions in conformity with the above-stated duty, and that if called upon to give testimony, I will do so in conformity with that duty.

SWORN BEFORE ME at the City of Northport in the State of New York, this 9th day of July 2010

Loriann Belfiore
Notary Public

Susan Stickevers
Susan Stickevers, MD

LORIANN BELFIORE
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Commission Expires: Dec. 21, 2013

The impact of polygamy on United Arab Emirates' first wives and their children

MARIAM SULTAN ABDULLA AL-SHAMSI & LEON C. FULCHER

Abstract

Exploratory research examined the impact of polygamy on first wives and their children in the United Arab Emirates. Twenty-five first wives reported on how polygamy impacted their lives and the lives of their children through responding to a questionnaire with 14 closed-response and 7 open-response questions. Results obtained from primary and secondary data sources were discussed with focus groups of family members and friends. Relationships were found to be especially problematic when the wife did not know her husband planned to marry again or give clear reasons about his decision to take another wife. Over half the children were reported by their mothers to have experienced psychological effects, reduced educational performance and fathers reportedly spent very little time with them after re-marrying.

Key words: polygamy, first wives, child welfare, family welfare

This is Exhibit "A" referred to in the affidavit of Susan Stickers
sworn before me at Northport, NY
this 9th day of JULY, 2010

LORIANN BELFIORE
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Commission Expires: Dec. 21, 2013

Loriann Belfiore
A Commissioner for taking Affidavits
for British Columbia
in NY State

Introduction

Polygamy is little known in Western countries although such practices are wide spread in Arab countries and other parts of the world even though it is not a universally accepted practice in any of these places. Western readers will be more familiar with research that examines the impact of divorce, illicit affairs or re-constituted families but rarely are they given opportunity to consider normative experiences with polygamy. Nor will Western readers be very familiar with the ways in which polygamy is endorsed within particular cultural frames of reference, having social, economic and religious justifications. This paper offers Western readers opportunity to examine an issue that impacts on families in the United Arab Emirates, highlighting ways in which first wives and their children are impacted through such experiences. As the daughter of a first wife in a large extended family, the principal researcher sought to explore potential benefits arising from polygamy as well as its impact on children.

Three social science research objectives were identified for the study (Sultan Abdulla Al-Shamsi, 2004). The first was to explore the impact of polygamy on first wives while the second was to examine the impact of polygamy on the children of first wives. The third objective was to explore how first wives viewed the relationship their children had with their father and half siblings. In what follows, polygamy is first defined as articulated in the Holy Qur'an and

the reasons for entering into polygamy are identified showing why men decided to marry second wives. Then the exploratory findings from this study are highlighted and discussed, offering comparisons with other research findings from the Gulf Region about the way polygamy impacts on first wives and their children. Implications are drawn for the development of responsive welfare practices with children and families in the UAE and other Gulf Region states, as well as supporting comparative research on the welfare of first wives and their children in Western countries.

The social and cultural meanings of polygamy

Polygamy occurs when a man has more than one wife, or less commonly, when a woman has married more than one husband at the same time. The word polygamy comes from two Greek words meaning many marriages. The practice of polygamy can be found in many places in both Asia and Africa. Islam restricts the number of wives a man can marry but there are no limits on the number of women a man can marry in the Hindu religion. Polygamy was once practised in countries such as China and Turkey but now laws in those countries prohibit it. US law prohibits polygamy although some American families – especially in the western part of that country – are said to still practice it (*The World Book Encyclopaedia* 2001). While cultural practices in most Western countries seemingly permit adults to enter into relationships with multiple partners, formal marriage to multiple partners is illegal.

Until the Qur'an was revealed 1400 years ago, polygamy was not permitted in Arabic countries. Since then, Islam has accepted polygamy and gives men permission to marry up to four wives at any one time. Clear rules must be followed when men choose to engage in polygamy. In the Holy Qur'an, Allah says *"Marry women of your choice two, or three, or four; but if you fear that you shall not be able to treat justly with them, then only one... That will be more suitable to prevent you from evil"* (Qur'an, 4:3). If a man cannot treat each of his wives equally, then he should only take one wife (Bewely, 1999). Another verse in the Holy Qur'an says *"You will never be able to deal justly between wives however much you desire (to do so). But (if you have more than one wife) do not turn altogether away from (from one) leaving her in suspense"* (Qur'an, 4:129). Thus, while Islam permits and may sometimes encourage polygamy, if men are afraid of being able to treat their wives fairly, they are not allowed to marry again and should have only one wife (Bewely, 1999). While the prophet Muhammad (PBUH) practiced polygamy after his wife Kadijah died, the prophet Muhammad (PBUH) was fair between his wives and only married for the reasons allowed (Khalifa, 1999).

In modern times, there remains much misunderstanding about polygamy. In countries like the UAE there can be many problems arising from polygamy because of such misunderstandings when men act without reference to the teachings of Islam (Jameelah, 2001). In one UAE study, Al Toneji (2001) found that when men married again most could not be fair between their wives and faced many problems. Seventy-five percent of participants in that study agreed that husbands with more than one wife faced economic problems because of having to pay for two houses (Al Toneji, 2001). Al Samraee found that in successful marriages, husbands were able to be fair between their wives by spending enough time with them and their children, dealing with them in the same way and providing them with enough money (Al Samraee, 2002). Another UAE study showed how government encouragement was given for men to marry again because the Emirate population was decreasing. Policies were adopted that encouraged polygamy so as to increase the number of Emirati people (Al Darmeki, 2001) although it is difficult to find estimations of the actual proportion of polygamous families overall.

A Kuwait study found that seventy-one percent of women thought men could not be fair between their wives and fifty percent of men in polygamous relationships agreed that they could not be fair between their wives (Abdu Salaam, 1997). Throughout Islam, it is important that husbands tell their first wife whenever he plans to marry again. When husbands do not tell their first wife before re-marrying then he commits infidelity with the first wife and brings new problems into their life (Al Kobesi, 2001). Many Muslim countries have introduced new conditions for men who might be contemplating polygamy. In Egypt, Philips (2001) found that while permission is required from the first wife, few women actually give their husbands permission to marry a second wife. Findings from the same Kuwait study showed that nearly two-thirds of women agreed with polygamy if her husband told her first before he married again but roughly half the men did not agree with telling his wife before re-marrying. When men do tell their first wife before marrying again there are fewer family problems (Abdu Salaam, 1997). Khadijah (2002) found that women in Egypt did not accept polygamy and those who did were mostly poor people who did not know that polygamy means fairness between wives.

Abdu Salaam's Kuwait study (1997) found that women did not agree with men who entered into polygamy because the men did not apply the Islamic principle of fairness between their wives. Two-thirds of women in that study agreed that men did not apply the Islamic condition of fairness while half the men disagreed. Some men offer reasons for polygamy that have been traditionally acceptable, such as when their first wife is infertile, is not giving birth to sons, is physically or mentally ill or when they are widowed (Al Kobesi, 2001). A hospital-based study in the UAE examined the experiences of infertile women, exploring the effects of infertility on their life (Kayata, 2003). Many of these women lived in polygamous marriages because they could not have children. Having children was very important in these women's lives and men who did not have children commonly re-married in order to have children (Kayata, 2003). Another reason for polygamy has to do with men dying in war and the population of men decreasing while the proportion of women increases thereby reinforcing societal injunctions for men to take multiple wives (Al Haneei, 2003).

Other reasons for polygamy reported by Abdu Salaam in the Kuwait study noted Ayoob's findings such as when men had problems with their first wife, when the first wife worked and was busy all the time or when the men sought honour and challenge (1997). Abdullah Al Ansari reported that a lot of men married a second wife because of their own personal needs and desires without really thinking about his family (Lootah, undated). Thus it seems that many in the Arabic world – both women and men – disagree with polygamy for any reason (Abdu Salaam, 1997), noting that studies in other Arab countries found that polygamy was not widespread as in Egypt (4%), Syria (5%) or Iraq (8%). Al-Sharnebi claimed that the first wife is especially affected by polygamy being prone to psychological problems caused by anger and these women are also more likely to visit a psychiatrist or counsellor (2002). Another UAE study (Zeitoun, 2001) found that polygamy contributed to family disintegration but that men were less likely to consider the negative effects of polygamy, marrying again and having more children without contemplating the long-term effects.

A Jordanian study found that polygamy and other family problems influenced children to search for work were more likely to drop out of school, become addicted to alcohol, become involved in juvenile delinquency and develop low self-esteem (*Alfaqer wa Tashqeel Alatfal fe Alordon*, 2002). Zeitoun's UAE study carried out at the Juvenile Care Center in Sharjah (2001) found that polygamy and divorce were associated with almost 95 percent of cases. This study found that one hundred cases aged between 13 and 17 from Sharjah and Northern Emirates were placed in care because of crimes such as theft or indecent practices associated with sexuality. These children came from families whose parents were divorced and the UAE national father was married to more than one wife (Zeitoun, 2001).

There are many types of polygamous family and while polygamy may resolve some social problems in the UAE, such as spinsterhood and population decline, other social problems still result from polygamy such as divorce, marriage problems, absent fathers and psychological problems in children (Al Darmeki, 2001) – all important when considering the special role played by parents in shaping the development of adolescent identity (Santrock, 2002; Al-Krenawi, 2001). Polygamy was also found to be the main factor causing marriage problems between spouses, causing jealousy between wives and selfishness leading to divorce (Shalash, 2003). Al-Krenawi's study amongst Bedouin Arabs showed that polygamy affected children's behaviours, contributed to low self-esteem and feelings of loneliness reinforcing the idea that parental relationships are very important in shaping children's behaviour (2001). Al Kobesi's UAE study showed that children from monogamous families adjusted to school better than children from polygamous families, and that children from different wives rarely developed positive sibling relationships with sibling rivalries and jealousy reported instead (2001).

Zeitoun's UAE study found that polygamy for some people meant having more children, but having more children from different wives meant that the children from these wives did not know each other (2001), highlighting the need for fathers to think about their first wife and the needs of the children from their first wife. A man needs to respect his first wife and his children's rights, and should also spend committed time with his first wife and the children from his first wife (Jameelah, 2001). First wives are frequently left to worry about their life and what they need to live a happy life, or to enable their children to grow up in a happy family. First wives are commonly expected to be patient, and to let their children love and respect their father. First wives are also expected to encourage their children to love their half brothers and sisters from other wives (Yahya, 2001). If men cannot be fair between their wives they should not marry again because there are likely to be many problems. All too often, these problems are not considered before choices are made to enter polygamous relationships.

Methodology

An exploratory and descriptive design was adopted for this study, using a questionnaire developed by the researcher and her supervisor with 14 closed-response and 7 open-response questions. Purposive sampling with a snowball sampling technique was used to invite thirty, first wives – all Emirati women living with their husbands and his other wives – to complete the survey in their own homes during a four-week period at the end of 2003. The questionnaire was developed in two languages – English and Arabic – to aid understanding by all participants. 25 first wives completed the questionnaires, all UAE nationals living in the nation's capital, Abu Dhabi. It is impossible to say whether this sample was in any way representative of the population of UAE first wives overall.

The researcher met with participants and discussed the research before giving them the questionnaire. Ethical safeguards involved explaining each question and why it was included in the questionnaire. The women were left to complete the questionnaires on their own so as to feel free about answering the questions. Participants were given the research supervisor's phone number and were encouraged to ask any questions if feeling unsure or if faced with difficult questions. None of the participants availed themselves of this offer. Participants were invited to read and sign a consent form before completing the questionnaire guaranteeing anonymity for all information shared. Some time later the researcher returned to collect the questionnaires that participants had placed in a sealed envelope. All the data was assigned a coded number and was stored in a safe place where only the researcher and her supervisor had access to it. Data was entered into an SPSS program (Statistical Package for the Social Sciences) and analysed using descriptive statistics, with tables and figures generated to display the results.

Once the data was analysed, the researcher discussed her anonymous results with two small focus groups – one involving four extended family members and the other involving two university student friends – making notes from these focus group discussions to further illuminate themes of importance to Emirati families. Notes were taken in Arabic by the principal researcher about themes highlighted during each focus group discussion. The research supervisor sought to guarantee that cultural safety (Fulcher, 2002) was maintained throughout the data collection, analysis, writing up and presentation stages of the research process. This included ensuring that the principal researcher obtained permission from her family about allowing her research project to be re-drafted and presented for peer review by an international journal. The manuscript was also submitted for additional cultural scrutiny by the parent university to ensure that cultural protocols around dissemination of knowledge were respected. Both the research and its subject matter need to be located within particular social and cultural frames of reference, especially given the many ways in which Western concepts, language and values shape – and sometimes distort – international discourses on child and family welfare (Harrison, 2003).

Finally, this study was limited because of its size to the views offered by a small number of Emirati first wives living in Abu Dhabi using a questionnaire that was not standardized nor validated beyond having face validity. The findings presented here about the impact of polygamy on children were dependent upon reports provided by their mothers. No instrumentation or secondary sources were used to test the reliability of these accounts. Thus, no generalizations can be made from this study about the impact of polygamy on family life in the UAE or elsewhere in the Arab world. The findings may be treated as illuminative, however, pointing to themes worthy of further investigation elsewhere in the world where are polygamous marriages are permitted.

Results

Five of the first wives who participated in this study were aged 20-30 years (20%), four were aged 31-35 years (16%), fourteen were aged 36-40 years (56%) and two were aged 45 or older (8%). One first wife had no formal education (4%), nine had completed elementary school (36%), two had finished preparatory school (8%), seven had attended secondary school (28%) and six had graduated from university (24%). One first wife (4%) did not have children, eight (32%) had 1-4 children, 15 (60%) had 5-9 children and one (4%) had 10 or more children. Twenty-two of the twenty-five first wives in this study were not aware that their husband was going to marry again. Three (14%) learned about the polygamy when their husband told her, eight (32%) when they saw their husband with the second wife, six (23%) learned about their husband's new marriage from friends, and eight (31%) learned from a family member. None of the women found it easy learning about the new wife. Over half of the first wives (56%) found it difficult when they learned about the polygamy and a similar number (52%) prayed about it. Some of the first wives (12%) talked with their family about it. Just over a third (36%) felt sad, some (20%) left their house, a third (32%) cried when learning about it and a few (12%) became sick.

About half of the husbands (52%) offered reasons for wanting to marry again but many gave no reasons (48%). Two of the first wives (8%) had histories of illness and another two (8%) of the husbands married again because of marriage problems. Four of the husbands (16%) took a second wife reportedly because of his own personal needs. Nearly three-quarters of the women (72%) said they actively contemplated divorce but were generally patient and decided not to seek a divorce. Twenty-one of the first wives (84%) thought about what might happen to their children after divorce while one (4%) thought about society's perspective against di-

orce. Three of the first wives (12%) gave other reasons such as deciding to be patient because their husbands still loved them or because their husband promised to divorce his second wife after two years. All but three of the first wives' families (84%) disagreed with the polygamy.

When asked about how their lives had changed, three women (12%) reported that they now had a better life since their husbands married again while two (8%) reported that life remained the same. More than half the first wives (56%) encountered problems after their husbands married again and six (24%) found they had more responsibilities than before. Five of the first wives (20%) sought help from a counsellor but most (80%) did not. Four visited a counsellor because their children were performing badly at school, getting low grades and were becoming unsociable. One woman visited a counsellor because she faced new family responsibilities after her husband re-married. Only seven first wives (28%) said that they did not face problems after their husbands re-married. Ten women (40%) reported that their husbands demonstrated unfairness between their wives, eight (32%) reported their husbands didn't care enough about their children, and nine (36%) said the fathers didn't spend enough time with their children.

Over half of the first wives (52%) reported that their husbands had children from their other wives. When asked how the polygamy had affected their children, four mothers (16%) reported that their children were affected by the polygamy but the rest (84%) said their children were not adversely affected. The mothers in this study went on to report that some of their children experienced emotional (28%), psychological (56%), financial (24%) and social effects (28%). Three out of five mothers (60%) also said the polygamy had impacted their children's education. Eight mothers (32%) reported that their children had lower grades, six (24%) reported that their children didn't like to study, one (4%) said her child had experienced failure and ten (40%) gave other explanations about how polygamy had impacted their children's lives, including dropping out of school. When asked if any changes in their children's behaviour had been observed, sixteen mothers (64%) said they had not noticed any changes. Nine mothers did notice changes, however, and some reported multiple changes. Three first wives reported more shouting, three said their children had become very quiet and withdrawn, six said their children had become unsociable and five said they had experienced violent episodes. Thus, while most of the mothers reported no adverse effects on their children and had not noticed any changes in their children's behaviour, a good number identified particular social, emotional and educational effects on their children which they attributed to the polygamy.

Only seven mothers (28%) said their children had experienced changes in their dealings with their father. The rest (72%) said that their children's relationship with their father continued as before. Fifteen mothers (60%) said that their children's fathers spent less than two hours per week with his family, three (12%) said that the fathers spent 2-6 hours and only seven (28%) said the fathers spent time every day with his children. Fifteen mothers (60%) said their children felt jealousy towards their father's children from other wives. Almost all of the first wives (92%) felt they needed their husband to spend more time with their children. Almost half of the first wives (48%) said the fathers of their children tried to build relationships with their father's children from different wives. Only three of the women (12%) said the fathers of their children treated their children equally in financial terms. Eighteen first wives (72%) said their husbands had not dealt with their children equally. Only two mothers (8%) reported that the fathers encouraged their children to be cooperative. Only two of the first wives (8%) said the fathers of their children took them shopping, one (4%) said the father went to the cinema with his children, one (4%) said the father took his children to restaurants and three (12%) said the fathers took his children out to eat together. Ten first wives (40%) said they tried to build a strong relationship between their children and their fathers. In summing up, four of the women (16%) felt that society encouraged first wives to divorce, twenty

(80%) felt society expected her to be patient and only one (4%) felt society permitted her to feel jealous.

Discussion

Most of the first wives did not know their husband was going to marry again. Only one or two knew about their husband's decision and were given clear reasons about why he wanted to marry again, a finding similar to results found in the Kuwait study where sixty-one percent of women accepted polygamy if her husband told her before re-marrying (Abdu Salaam, 1997). Most first wives in this study learned about the new marriage when seeing their husband with the second wife or when learning about it from a family member. This finding prompted angry discussion amongst focus groups of family and friends, most saying when husbands marry again without telling their wives they show disrespect. When learning their husband married again, many first wife participants said they had had to face this difficulty and prayed about it while only a few talked with family members about it. Some did nothing while others felt sad and feared for their children's lives growing up in a polygamous family.

Many of the women never imagined their husbands would be with another woman. Most of the husbands gave no clear reasons for marrying again, although some said it was because their first wife was sick or because of marriage problems. Some husbands married again because their friends encouraged them or because of what the women described as their husband's "personal needs", thereby confirming other research where men were reported to have married a second wife for similar reasons (Lootah, undated). Some first wives said their husbands married again because they did not accept his 'bad behaviour' without explaining what this meant. Most of the first wives considered divorce but did not because of their children, contrasting with Al Mandeel (2000) study which found the main cause of divorce was polygamy. Upon hearing that her husband had married again, the focus groups thought first wives should think only about their children's future, in spite of disagreeing with the polygamy.

When asked about how their family life had changed when their husband married again, one in four reported facing many new problems and responsibilities, a finding consistent with other UAE research findings that confirmed marriage problems resulted from polygamy (Al Darmeki, 2001). Few of the UAE first wives visited a counsellor to get help while Zeitoum (2001) found that many women sought psychiatric assistance. Focus group members thought it was unnecessary to visit a counsellor since first wives can resolve such issues by themselves, or with the help of sisters or friends. Most first wives wanted to solve their own problems, perhaps reflecting themes of shyness or cultural inappropriateness about sharing personal problems outside the family. Problems faced by the first wives included the husband's unfairness between his wives, not caring about his children and not spending enough time with his family, findings consistent with Abd Salaam's Kuwait study (1997) where seventy-one percent of women said men in polygamous relationships could not be fair between their wives. One is reminded that while Islam encourages men to marry one, two, three or four wives, this is permitted only when the husband can demonstrate fairness between his wives – and without fairness – families are likely to face problems. So long as the husbands demonstrated fairness between their wives, focus group members were generally supportive of polygamous relationships.

The first wives in this study reported that most of their husbands had children from their other wives. Over half of the children were reported to have experienced psychological effects from the polygamy and some faced emotional, financial and social effects. These results are consistent with Al Darmeki's findings (2001) showing that children from polygamous families

experience psychological and social problems. Focus group discussions reinforced the view that polygamy impacts children emotionally and psychologically. Polygamy reportedly affected the educational performance of three out of five children in this study. Almost three quarters of the mothers said their children had lower grades and didn't like to study, findings consistent with another UAE study showing how children from monogamous families adjusted to school better than children from polygamous families (Al Khobesi, 2001). Focus group members emphasized that when faced with life problems, children's school performance was likely to be affected. Several of the children in this study were said to have become unsociable and violent, with some being more prone to shouting while others becoming quieter and withdrawn thus reinforcing Al-Krenawi's findings that children from polygamous families had lower self-esteem and experienced a greater sense of loneliness (2001).

Many of the children in this study of polygamous families still dealt with their father as they had done previously although two-thirds of the fathers reportedly spent less than two hours per week with their children thus highlighting the issue of absent fathers (Al Darmeki, 2001). Focus group participants expressed anger about fathers marrying again and spending more time with their new wife or at work. Most children were said to be jealous about their father's children from other wives. This affected their behaviour and psychological state through feelings that their father had been taken away from them, reinforcing Al Kobesi's finding that children from other wives rarely became siblings and were more likely to become enemies (2001). Focus group members generally agreed that they felt jealous because their father had other children from a different wife.

All but one of the first wives thought their husband should spend more time with their children from his first marriage and all thought it was important to think about their children's lives. About half the fathers in this study tried to build relationships between their children, a small number showing equality around financial matters and about a third demonstrating equality in dealings with their children. Few fathers encouraged their children to be cooperative, went shopping with them or took them out for meals. This suggested that polygamous fathers gave insufficient thought to the needs of their children and the importance of fostering harmony and ensuring fairness amongst both children and their wives. Focus group members reinforced the importance of children having strong relationships with their fathers.

Three out of five first wives did not work to build strong relationships between their children and their father although some believed it was very important for children to respect their father. Two thirds of the first wives were encouraged by society to be patient, a finding similar to results found in Yahya's (2001) UAE study. Focus group members thought first wives should be patient because of their children, thereby encouraging others toward good ways. Some suggested that if a husband does not worry about the years he lived with his first wife then first wives should be patient, but the main concern is fairness and first wives and their children are impacted more from polygamy than second wives. One wife commented that husbands should make separate houses for his wives while another chose to live alone without her husband, even though it meant separating the children from their father. A final participant thought when husbands re-marry without clear reasons they steal the rights of their first wife.

Conclusion

This exploratory research examining the impact of polygamy on first wives and their children highlighted the way that few wives were told about their husband's decision to take another wife. Polygamy was reported to have impacted on their children's education, social behav-

iours, identity and sense of self-esteem. Fairness between wives and families was frequently open to question. More worrying was the small amount of time fathers in polygamous families spent with their children. Society and those around the first wife expected her to be patient and not seek professional counselling. Implications for child and family welfare practice point to the importance of husbands telling their first wife before marrying again, giving clear reasons for his decisions. First wives may think about divorce but they also have to think about their children and how divorce might affect their children. First wives need someone with whom they can talk – a family member, friend or a counsellor – so that they can share their thoughts and feelings about what is happening. Husbands should be encouraged to spend more time with their family, especially after taking another wife, because such absence is likely to impact negatively on his children's studies and behaviour. Husbands should also try to build relationships between the children of his different wives so as to limit the unhappiness, sibling rivalry, jealousy and painful relationships that frequently emerge between the children and their mothers. Finally, husbands need to be fair and equal between their wives since, as the Holy Qur'an says: "Marry women of your choice two, or three, or four; but if you fear that you shall not be able to treat justly with them, then only one... That will be more suitable to prevent you from evil" (Qur'an, 4:3).

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BRIEF COMMUNICATION

Women of Polygamous Marriages in an Inpatient Psychiatric Service in Kuwait

KUTAIBA CHALEBY, M.D.¹

The practice of polygamy, although varying from culture to culture, is widespread in many areas of the world. In Kuwait, for example, 8 to 12.5% of all marriages contracted are polygamous. Although sociologists and anthropologists, as well as common sense, have suggested that a polygamous marriage may have a negative effect on the wives involved, an extensive literature search failed to uncover any psychiatric research that attempts to examine this situation or objectively delineates possible psychiatric sequelae. The present study was a pilot effort to determine whether Kuwaiti wives of polygamous marriages were disproportionately represented in the inpatient psychiatric as opposed to the general population. A second purpose was to determine the extent of the relationship between psychiatric disorder and marital situation. Preliminary data indicated that the percentage of wives of polygamous marriages was significantly greater in the inpatient psychiatric population than in the general population of Kuwait, as reflected in the 1975 census. In addition, the results suggested a relationship between the nature of psychiatric disorder and the marital situation. Alternate explanations of the data are advanced, and the need for controlled future studies outlined.

The practice of polygamy is widespread in many areas of the world, its prevalence and distribution within individual cultures varying with social class, education, and geographic location. From 8 to 12.5% of all marriages contracted in Kuwait are polygamous, and the percentage may be higher in other Arabian Gulf countries. In the business and professional classes it is probably most prevalent (49%) among the Al-Aligarh Moslems in India (7, 9).

Intuition and common sense may lead us to believe that this kind of marriage will have a negative effect on the women involved. It seems surprising that the psychiatric literature does not contain any study that examines this situation or objectively delineates the psychiatric sequelae. Most of our current knowledge is derived from social and anthropological literature, which shows little concern for psychiatric aspects of the problem (2, 10).

Sociologists believe polygamous marriages engender multiple problems in a family, e.g., jealousy in all its forms and with consequences such as explosive confrontation, loss of self-esteem, and depression (1, 3). Some workers have noted insufficient father-son contact and some masculine identity problems (8), rivalry between half-siblings, a decrease in wives' fertility (4),

and a higher rate of infant mortality within these subgroups.² A unique neurotic syndrome in association with polygamous marriages has been identified in some Arabian Gulf countries: a bizarre type of somatization disorder characterized by the person's describing him or herself as a "total wreck," with disturbed body function from head to toe (6).

As a first attempt to study the psychiatric consequences of the polygamous situation, a survey of the problems apparently created was conducted among women in a psychiatric hospital in Kuwait; the relevance of their marital status to particular psychiatric disorders was identified.

Methods

The institution where this study was conducted is the only one in Kuwait providing inpatient care for psychiatric patients. The records of approximately 600 patients, limited to married women between 18 and 55 years of age, were reviewed. Because of poor record keeping, a large number of charts were excluded because of deficiency or incompleteness. The final sample consisted of 125 married or divorced Kuwaitis whose charts contained sufficiently complete and comprehensive information to meet the standards of

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² Isaac, B. L. Polygyny as a factor in fertility and infant mortality among the Mende of Sierra Leone (West Africa). Abstract 0651, 1980. Available from Sociological Abstracts, Inc., P. O. Box 22206, San Diego, California 92122.

This is Exhibit "B" referred to in the affidavit of Susan Sticker, sworn before me at Northport, NY, this 1st day of July, 2010.
Susan Sticker
A Commissioner for taking Affidavits in the State of New York

LORIAN BELFIORE
Notary Public, State of New York
No. 01BE6215043
Qualified in Suffolk County
Commission Expires: Dec. 21, 2013

the study. The patients selected for study represented a wide range of educational, occupational, and socioeconomic levels.

Because of the small number of subjects, their psychiatric disorders were classified as follows: a) depressive disorders, including the major depressive and dysthymic disorders without psychotic symptoms; b) functional psychosis, including schizophrenic and affective disorders with psychotic manifestations; c) postpartum psychosis; and d) all other psychiatric disorders.

The proportion of wives from polygamous marriages in the total female population was compared to the proportion of those from polygamous marriages in the general population of Kuwait, as determined by the last available census of 1975. The term "senior wife" was applied to any woman who was followed by another wife in the marriage, regardless of the number who had preceded her. The term "junior wife" was applied to the most recent wife joining a marriage.

The criterion for identifying the polygamous state as contributing to the psychiatric disorder was the patient's own perception that it had done so. The term "undetermined" was used when the polygamous situation preceded the onset of the illness, but insufficient data were available from the charts to determine whether the polygamous state precipitated the illness. It was assumed that the polygamous setting was not causally related to the illness when onset of psychiatric disorder occurred before the second marriage.

Results

Of the 125 patients studied, 31 (24.8%) were members of polygamous marriages, as compared to 11.5% of all married women in the general population of Kuwait according to the 1975 census. Estimated incidences of polygamous marriages in 1980 and 1981, drawn from marriage court statistics, were 8.6 and 12.5%, respectively, which suggests that there has been no significant change in the rate of polygamous marriages since 1975.

Chi-square analysis, applied to a standard 2×2 contingency table (5), indicated a statistically significant difference ($\chi^2 = 19.020$, $df = 1$, $p < .001$) in the number of wives of polygamous and monogamous marriages in the psychiatric, as opposed to the general, population. This difference, as judged from marriage court records, appears to have been constant over the past several years.

Of the 31 polygamous wives in the sample, 21 were classified as senior and 10 as junior. By patient perception, the psychiatric disorder was strongly related to the marital situation for eight of the senior and three of the junior wives. Polygamous marriage ante-

dated the psychiatric history in four senior and four junior wives. In nine senior and three junior wives, the contribution of marital status to symptoms was undetermined; however, their polygamous situation postdated the first psychiatric consultation.

Diagnoses in the polygamous sample included 16 depressive disorders, nine functional psychoses, four puerperal psychoses, and two "other," compared with 44, 30, 10, and 20, respectively, in the monogamous marriages of the sample. Of those who believed that their symptoms were related to their marital status (see *Discussion*), 10 had depressive disorders and one a puerperal psychosis; functional psychosis was not diagnosed in these cases.

Of those for whom it was difficult to relate symptoms to marital status, five were judged to be depressive, five were functionally psychotic, and two had puerperal psychosis. Of women whose illnesses began before the husband took a second wife, only one was depressed, four had functional psychosis, one had puerperal psychosis, and two had "other" disorders. Thirteen of the senior wives were diagnosed as depressive, four as functionally psychotic, three had puerperal psychosis, and one was diagnosed as "other." Of the junior wives, four had depressive disorders, four functional psychosis, and one puerperal psychosis.

Discussion

The ratio of senior to junior wives in this psychiatric sample was about 2:1. When cases in which the psychiatric disorder preceded the second marriage were excluded, the ratio rose to approximately 3:1. Depressive disorder seems a more likely cause for admission among polygamous wives than monogamous ones, and more so among senior than junior wives. Psychotic disorders are more common in the monogamous group, but their prevalence is equal in both groups after exclusion of the senior wife population. The senior wives, therefore, appear to harbor most of the neurotic disorders.

The subjective relating of symptoms to marital status could be a retrospective evaluation of a depressed woman who has been sent to a mental hospital. Some older wives may have been hospitalized because their husbands wished to discard them. Other may even have used hospitalization as a means of escape from the family confines. These possibilities can only be clarified by future studies. An extensive literature search uncovered not a single study in psychiatric journals, including local ones, addressing this issue; all available references are derived from the social and anthropological literature. Most local observers believe, however, that the relationship is a real and

significant one, the extent of which deserves controlled study.

In addition, it is possible that the higher percentage of senior wives with depressive symptoms is explained in part by the fact that they are usually older and, therefore, suffering from postmenopausal illness or feelings of loss. On the other hand, in this study, severe depressions classified under psychotic disorders were as prevalent among members of monogamous as among polygamous marriages. Another possible weakness of this study is that the sample may be biased by the criteria of the sample selection. This seems unlikely because the completeness of the chart reviewed, which was the criterion for sample selection, depended upon the conscientiousness of the treatment team or the adequacy of the medical records department, neither of which has significant relevance for this study.

Finally, hospitalization for mental illness has a grave meaning and carries a grave stigma in the Arab world. Psychiatric hospitalization, therefore, is almost always a last resort. Hospitalization of a woman carries the greatest stigma. Both outpatient and inpatient treatment are sought more often by males than by females; the Arab male, who has full responsibility for the female, is extremely reluctant to allow his female to see a psychiatrist in the community because of the

reflection upon him. Other women may not be brought to hospitals or clinics simply because of the man's disinterest. The sociocultural meaning of mental hospitalization in the Arab population is, however, changing, and increasing numbers of Arab families are beginning to relate to mental illness in a more typically Western manner.

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This is Exhibit "C" referred to in the
affidavit of Susan Stickers
sworn before me at Northport NY
this 9th day of JULY, 20 10

Loriann Beliore
A Commissioner for taking Affidavits
for ~~Critical~~ in NY State

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LORIANNA BELFIORE
Notary Public, State of New York
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Qualified in Suffolk County
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WOMEN OF POLYGAMOUS MARRIAGES IN PRIMARY HEALTH CARE CENTERS

Alean Al-Krenawi

ABSTRACT: Clinical implications for working with polygamous families are discussed following a report of research among a sample of 126 Bedouin-Arab women from polygamous marriages who were being seen in primary health care centers. Of these, 94 were senior wives who were followed by another wife in the marriage, and 32 were junior wives, the most recent wife joining the marriage. Data revealed that senior wives reported lower self-esteem as compared to junior wives. Findings also showed that senior wives reported poorer relationships with their husbands compared to their junior counterparts. Often when a husband married a second wife, the marriage could be based on love, rather than parental arrangement, an exchange, or consanguinity as in the first. These factors also contribute to the senior wife's low self-esteem and marital dissatisfaction.

KEY WORDS: polygamy; Bedouin-Arabs; senior and junior wives.

Polygamous marriage is often associated with stress, tension, conflict, and disequilibrium in the family structure (Al-Krenawi, 1998a; Al-Krenawi, Graham, & Al-Krenawi, 1997; Al-Krenawi & Lightman, in press; Chaleby, 1988). Several studies have focused on the phenomena of polygamy from an anthropological perspective, which often relies on the men's perceptions of the practice of polygamy (Ware, 1979). Polygamy has also been studied in terms of fertility (Caldwell & Caldwell, 1990). Polygamy is known to occur in Europe and North America, among other Western societies (Abdul-Ati,

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1974; Altman & Ginat, 1996; Broude, 1994; Welch & Glick, 1981) but it is common in sub-Saharan cultures Middle East, Africa, Asia, and Oceania, with up to 50% of all wives living in polygamous union in some cultures (Abu-Lughod, 1986; Ware, 1979).

Researchers and family practitioners have rarely paid attention to the association between polygamy and mental health. Recently, however, there has been a growing body of data published by scholars from different disciplines investigating the impact of polygamy on women and children in polygamous marriages (Adams & Mburugu, 1994; Al-Krenawi, 1998a; Al-Krenawi et al., 1997; Chaleby, 1987, 1988; Kilbride & Kilbride, 1990; Wittrup, 1990). The practice of polygamy can lead to co-wife jealousy, competition, and unequal distribution of household resources (Al-Krenawi, 1998a; Borgerhoff-Mulder, 1992; Kilbride & Kilbride, 1990; Ware, 1979), creating acrimony between co-wives and between children of different wives (Al-Krenawi, 1998a; Ware, 1979). A greater prevalence of mental disorders has been found among women in polygamous than monogamous marriages (Makanjuola, 1987); for example, relative to their numbers in the general population, higher proportions of women in polygamous marriages in Kuwait were psychiatric outpatients (Chaleby, 1987) and inpatients (Chaleby, 1985). Among psychiatric patients, polygamous marriage is associated with depressive disorders, anxiety states (Ghubash, Hamdi, & Bebbington, 1992), depression, somatization disorders, and loss of self-esteem (El-Islam, 1975; Camara, 1978, cited in Chaleby, 1985).

Polygamous wives may live together, although they most commonly have independent households, where each lives with her children (Broude, 1994). A "senior wife" is defined as any married woman "who was followed by another wife in the marriage." A "junior wife" is "the most recent wife joining a marriage" (Chaleby, 1985, p. 57).

As in other Arab cultures, first time marriages among the Bedouin-Arab are commonly arranged by parents/parent substitutes, and are often consanguineous or an "exchange" (where two men are married to each other's sister) (Al-Krenawi et al., 1997; Chaleby, 1985; El-Islam, 1989). Subsequent marriages are associated with both love and with greater possibility of choice. Hence, second and subsequent wives often experience favored status with respect to economic resources, social support, and attention (Al-Krenawi, 1998a; Al-Krenawi et al., 1997). The literature indicates that there are differences between senior and junior wives in a polygamous marriage. For example, marital satisfaction is related to wife order in polygamous

marriage; junior wives were more satisfied with their marriage than senior wives in a study conducted in rural Cameroon (Gwanfogbe, Schumn, Smith, & Furrow, 1997). Chaleby (1987) pointed out that in the psychiatric service in Kuwait there were more senior wives under psychiatric treatment than junior wives. In another study (1985), he noted that senior wives related their psychiatric symptoms to their husband's remarriages, which led to marital dissatisfaction among the senior wives.

POLYGAMY FROM THE ISLAMIC PERSPECTIVE

Polygamy in pre-Islamic Arabia was a common practice; a man was allowed to marry an unlimited number of wives without any restriction. This was justified as a compensation for the shortage of men caused by frequent tribal wars (Doreen, 1983). Islam limited the number of wives to four under certain conditions: (1) no man could have more than four wives at any one time; (2) the man must possess the financial means to support more than one wife; and, (3) treatment and attention given to each wife must be equal (Abu-Baker, 1992; Abdel-Ghany, 1988; Chamie, 1986). Moreover, some forms of polygamy which were prevalent in Arabia were prohibited by Islam—such as marrying two sisters at the same time or a woman and her aunt (Badawi, 1976).

The reason for not banning polygamy is rooted in the fact that there are special circumstances facing individuals and societies at certain times which make the limited practice of polygamy justifiable. The verse that permits polygamy was revealed to the Prophet Muhammad after the Battle of Uhud, in which many Muslim men were killed (Abu-Baker, 1992; Jawad, 1991). This raised concern for those women and orphans who were left without men to take care of them (Badawi, 1976). The verse reads as follows:

If you fear that you shall not be able to deal justly with the orphans, marry women of your choice, two, or three, or four; but if you fear that you shall not be able to treat them equally, then only one (Koran Surah Al-Nissa, v. 3).

Before thinking of marrying a second wife, a Muslim man is instructed to ensure that he will be able to deal justly between his wives, provide for them sufficiently, and share his love and resources equally among his wives and their children. The study here joins the

small body of research comparing senior and junior wives of polygamous marriages. It analyses the demographic characteristics of the two groups, the backgrounds of the subject's parents, the husbands' occupations, the relationships between the wives and their husbands, and the women's self-esteem.

THE BEDOUIN-ARABS OF THE NEGEV

Bedouin-Arab is the general name for all Arabic-speaking tribes in the Middle East. The Bedouin-Arabs are distinct in the Arab world because they inhabit deserts, but this should not infer a unified racial, ethnic, or national group, or a homogeneous style of life (Hana, 1984). Their presence extends to Egypt, Israel, Jordan, Saudi Arabia, and Syria, among other countries (Barakat, 1993). The society is high context, emphasizing the collective over the individual, and has a slower pace of societal change and a greater sense of social stability (Al-Krenawi, 1998b, Al-Krenawi & Graham, 1996, 1997b; Barakat, 1993; Hall, 1976). In contrast to the Western liberal conception of individual autonomy, Bedouin-Arab identity is inextricably linked with the collective identity of the family, extended family, and tribe (Al-Krenawi & Graham, 1997a, 1997b; Yosef, 1991). Bedouin-Arab society is authoritarian and group-oriented, rather than egalitarian and individualistic (Al-Krenawi, 1998b). Today, of the Negev's 120,000 Bedouin-Arabs, 40% live in villages, and 60% live in unrecognized villages without basic infrastructure and services (Al-Krenawi & Graham, 1997a).

As a partial consequence of such a structure, a hierarchical order is maintained in the family in which the dominance of the male over the female and the older over the younger is observed. Gender differences in Bedouin-Arab society are also strongly defined, and the social structure is quite patriarchal, maintaining men's leadership authority in the household, the economy, and the polity (Al-Krenawi, 1996; Mass & Al-Krenawi, 1994). Women's social status is based on marriage and rearing children, especially boys. In Bedouin-Arab society, sons have higher status than daughters (Ben-David, 1982). When asked how many children a man has, the response invariably only refers to sons; daughters are not included in the count (Abu-Khusa, 1994; Al-Abbadi, 1973).

The Bedouin-Arab marriage has a distinct construction. The majority of marriages are arranged for girls in their early teens by par-

ents or parent-substitutes, without prior consultation with the girl concerned, and in some cases, even if she raises objections (Yosef, 1991). Love marriage is a rarity. Polygamy, as well, is still a common practice, even among the well educated and the young. As already noted, where the first marriage is often arranged, the second may be by choice, and thus closer to the Western conception of a "love marriage" (Al-Krenawi, 1998a, 1996).

Several factors contribute to the practice of polygamy among the Bedouin-Arabs. On religious grounds, the Koran allows men to have multiple wives (Koran, Surah 4, v. 3). "Exchange marriages" are also quite common. These occur when two men are married to each other's sister, and one of the men decides to take on a second wife. The other man in turn experiences pressure from his family to take on a second wife, in order to maintain a symmetry between the two family structures and the honor of his sister, hence of his family. There are other reasons for polygamy. A man may select a second wife if the first wife is not fertile, if she has not born him sons, if she is physically or mentally ill, or if she cannot meet the husband's sexual needs (Abu-Baker, 1992). In order to augment the status of his family and himself, he may select a new wife (wives) in order to increase his number of sons (Al-Krenawi, 1998a). There is also correlation between wealth and polygamy in Bedouin-Arab society (Abu-Lughod, 1986).

METHOD

Procedure

Three primary health care centers (hereafter PHC) located in three different Bedouin-Arab villages were selected for this study. The clinics were chosen for several reasons; first, there were Bedouin-Arab social workers working along with the general practitioners (GPs). Secondly, women in Bedouin-Arab society are allowed to visit the PHC without breaching the cultural norms and without their families' interference (Al-Krenawi, 1996). The PHC also serves as a social club, and many women spend their time for a variety of reasons in the PHC (Al-Krenawi, 1996). Thirdly, the literature indicates that the PHC is the central junction where physical, mental, and social problems come together (Gross, Gross, & Eisenstein-Naveh, 1982; Halbriech, 1994).

The present research was initiated by myself with the cooperation of three other Bedouin-Arab social workers—two male and one

female—who were working in the PHCs. With the social workers' permission, three female Bedouin-Arab students, one for each of the villages, were hired to conduct the interviews. At the first meeting, I described the purpose of the study and the research tools, as well as the collaboration process between social workers and the interviewees. Female interviewers were chosen in order to avoid subjects' hesitation and gender barriers in the Bedouin-Arabs society. Often patients in the PHCs are referred by the GPs to the social workers in the clinics for a variety of problems that could be psychiatric or psychosocial, or involve mediation, financial, child, or family problems. In turn, social workers referred the patients who met the study criteria to one of the three students for an interview. All referrals were made only after the patients agreed to participate in the study.

Participants

The sample consisted of 126 women, 94 (75%) senior wives and 32 (25%) junior wives. The subjects were selected from a pool of clients who were referred to the social workers by the GPs during an 8-month period. The criteria for selection were women without psychotic symptoms who were from polygamous marriages, senior wives whose husband had married a second wife within the previous year, and junior wives. The participants were informed that their participation in the study would not hurt their rights to receive the social workers' services, and they were also informed that they had the right to leave the interview at any time. The issue of confidentiality was emphasized by both social workers and the interviewers. The participants were told that the data would be published and that no one would be able to recognize them. In addition, standard academic procedures governing participants' consent were followed. It should be noted that all research participants fully collaborated with the interviewers and were ready to be open and to talk freely about their lives.

Research Instrument

The research instrument consisted of three parts. The first was a semi-structured questionnaire created in Arabic for the purpose of this study. It solicited such information as age, education, employment, historical background of the subject's parents, and the husband's occupations. The second was a five-point Likert scale measur-

ing each subject's relationship with her husbands (1 = poor, 5 = excellent relationship). The third was the 10-item Rosenberg (1979) Self-Esteem Scale, which has a high level of internal consistency (Gutman measurement of reconstruction = 0.92) and a high score on a test-retest analysis ($r=0.85$). The scale ranges from 1 to 4, with higher scores indicating higher self-esteem. The Self-Esteem Scale translated into Arabic and then independently translated back into English to check for accuracy of translation. The interviews were conducted in the Bedouin-Arab dialect. The Arabic version of the scale had a satisfactory level of internal consistency (Cronbach alpha = 0.75).

RESULTS

There were 16 junior wives in the 18–20 year age group and no senior wives. In the group aged 21–29 years, 55 were senior and 12 were junior wives; 26 senior and 4 junior wives were aged from 30 and 40 years; 13 senior and no junior wives from 41 to 55 years old (Table 1). Junior wives were thus found to be younger than senior wives: 50% of the junior wives were in the category of 18–20 years, 38% from 21–29 years, and only 12% under the category of 30–40 years. Thus, the ages of 88% of the junior wives were from 18–29. Chi-square analysis indicated significant differences ($\chi^2=82.392$, $df=3$, $p<0.0001$).

Regarding educational level, 81 (86%) of the senior and 10 (31%) of the junior wives were illiterate; thus, 91 (72.2%) of the entire sample were illiterate, which is a very high number. Only 13 (14%) of the senior wives and 12 (38%) of the junior wives completed elementary school, and none of the senior, and 10 (31%) of the junior wives, managed to complete nine years of education. Thus, 69% of the junior wives had between 6–9 years of education, as compared to 14% of the senior wives, who had six years of education. Chi-square analysis indicated significant differences ($\chi^2=143.738$, $df=2$, $p<0.0001$). None of the senior or junior wives was employed outside of their homes; all were housewives.

Reviewing the family background of the subjects, 24 (26%) of the senior and 22 (69%) of junior wives came from stable families. None of the sample had divorced parents. Loss of parents had been suffered by 20 (21%) of the senior and none of the junior wives, and 50 (53%) senior and 10 (31%) junior wives were children of polygamous mar-

riages. Chi-square analysis indicated significant differences ($\chi^2 = 9.562$, $df = 3$, $p < 0.05$). Roughly half of the entire sample (60, 48%) grew up in polygamous families.

The subjects' husbands were categorized as driver, clerical, unemployed, and professional: 20 (21%) of the senior wives' husbands and 18 (56%) of junior wives' husbands were drivers, 36 (38%) of the senior and 5 (16%) of the junior wives' husbands were clerical; 30 (32%) of the senior and 4 (12%) of the junior wives' husbands were unemployed, and 8 (9%) of the senior and 5 (16%) of the junior wives' husbands were professionals. Chi-square analysis indicated significant differences between the two groups ($\chi^2 = 88.52$, $df = 3$, $p < 0.0001$).

There were statistically significant differences between the two groups in terms of self-esteem and quality of the relationships between the subjects and their husbands. On the Self-Esteem Scale, senior wives scored ($M = 3.15$, $SD = 0.5836$), and the junior wives scored ($M = 3.6156$, $SD = .038446$), with $t = 4.207$ and $p < 0.05$. Senior wives scored lower on self-esteem than junior wives, and this indicates that there are consequences for the psychological functioning of the senior wives. Related to the question of how the senior and junior wives evaluated their relationships with their husbands, senior wives scored ($M = 1.17$, $SD = 1.15$), and junior wives scored ($M = 3.281$, $SD = 1.11$), with $t = 9.03$ and $p < 0.0001$. This indicated statistically significant differences between the two groups.

DISCUSSION

This study was an attempt to compare two different groups of women—junior and senior wives—from polygamous marriages. Data revealed that junior wives were younger than senior wives. The age variable plays an important role in Bedouin-Arab society, particularly for the senior wives, since in Bedouin-Arab culture it is common that the term for senior wife is “old wife” and for junior wife “young wife.” Since youth and beauty are associated with femininity, the self-esteem of senior wives is consequently damaged by the term “old” (Al-Krenawi et al., 1997). Moreover, when a man takes a second wife, the senior wife may be perceived to have been unable to fulfill her normal obligations as a wife. Junior wives in this study were more educated than senior wives; as a result, they might find a common language with their husbands, who are exposed more than females to Western society. None of the subjects worked outside their homes, in accor-

dance with Bedouin-Arab strictures against women's non-domestic labor. This was affirmation of the gender-related roles ingrained in Bedouin-Arab society: females should stay at home and take care of their children, and males are the breadwinners and represent the family in the outside world.

This study raises a major question about the continuity of polygamy among the Bedouin-Arab of the Negev, where roughly half of the entire sample had been children of polygamous families. The subjects' husbands represented different social strata, ranging from blue collar to professional. Thus, polygamy is common among all levels of people within this society, regardless of education and occupation. It should be mentioned that, within the last few years, several school principals, school inspectors, social workers, and others in high positions in the Bedouin-Arab community have taken second wives. Thus, polygamy is a result of factors that are deeply rooted in this culture. Males in Bedouin-Arab society have a commitment to marry their women relatives, even though they do not love them. It is a matter of dignity and family honor, the main goal being to keep women within the extended family and tribe (Abu-Khusa, 1994). Consequently, polygamy may take place in some cases in order to protect the extended family's honor, which is a very important principle from the Bedouin-Arab perspective.

The continuity of practicing polygamy indicates that males in this society ignore the emotional and instrumental needs of the senior wives and their children in polygamous marriage. Several studies have pointed out that senior wives suffer psychologically, socially, and economically (Al-Krenawi, 1998a; Chaleby, 1988; Topouzis, 1985), the literature also correlates children of senior wives from polygamous families with lower academic achievement and greater behavioral problems (Al-Krenawi & Lightman, in press, Cherian, 1990, 1992; Eapen, Al-Gazali, Bin-Othman, & Abou-Saleh, 1998).

The present study revealed that senior wives reported lower self-esteem compared to junior wives. Rosenberg (1979) defined self-esteem as "the wish to think well of oneself . . . and the wish to protect the self-concept against change" (p. 53). Rosenberg further stated that people with high self-esteem also have high self-respect and consider themselves as persons of worth. When husbands take a second wife, senior wives perceive themselves as having failed to have met their community's expectations of a successful wife. The impact, therefore, is two-fold: on the immediate level of the personal and the broader level of the family, extended family, and community. The husband's

remarriage, therefore, is a double insult to the senior wives, psychologically and socially.

In the present study, senior wives reported poor relationships with their husbands compared to their junior counterparts. Often when a husband marries a second wife, the choice is unlike the first; it can be based on love, rather than parental arrangement, consanguinity, or an exchange. These factors can contribute to the senior wife's low self-esteem and marital dissatisfaction. Moreover, frequent and often intense competition and jealousy between co-wives, and between the children of each wife, occurs (Al-Krenawi, 1998a; Al-Krenawi & Lightman, in press). This acrimony in turn can exacerbate marital tensions (Al-Krenawi et al., 1997).

Although anthropologists note in some societies instances of cooperation, friendship, and amicably shared domestic labor between co-wives (Adams & Mburugu, 1994; Borgerhoff-Mulder, 1992; Ware, 1979), these kinds of mutual cooperation and acceptance have not been indicated among Bedouin-Arab subjects. Indeed, the introduction of a junior wife is seen to split the Bedouin-Arab family into two sub-families. The senior wife perceives that some of the husband's material resources are thus diverted from her and her children to the junior wife and her children. This may lead to fighting between the co-wives and competition for the husband's social and economic support (Dorjahn, 1988). The husband's behavior has thus caused suffering for the senior wives, and the children of different wives in a polygamous family relate to each other as enemies instead of brothers and sisters. Thus, it can be said that polygamy in Bedouin-Arab society puts the senior wives and their children at risk of psychological and mental disorders.

CLINICAL IMPLICATIONS

Mental health practitioners who are dealing with polygamous families need to be able to read the family's and sub-family's ecological map (Hartman, 1979). It is likewise important to set realistic goals regarding the improvement of family and intrasub-family dynamics or the allocation of the father's resources toward sub-families. I suggest that change is most successfully implemented with the active participation of the father, recognizing his considerable power

over both sub-family systems. The husband's father is often respected by the husband, both wives, and their respective families, and in some cases may therefore be involved as a mediator or advocate (Al-Krenawi, Maoz, & Riecher, 1994; Al-Krenawi et al., 1997). This kind of inter-family mediation has a traditional basis in Bedouin-Arab society and is therefore very valuable if it can be tapped.

Practitioners should carefully select target systems for intervention. Women, it should be emphasized, are socially constructed to be loyal to their husbands. A wife who divulges family problems to anyone outside the immediate family is considered to be disloyal, and could incur the anger of her husband and/or extended family members (Mass & Al-Krenawi, 1994; Savaya, 1995). Thus, it would be difficult to frame intervention in the immediate context of meeting the wife's needs. A far more appropriate target system is the children, since both of the parents' social status and future economic well-being are strongly dependent upon the size of the family. Thus, intervention could feasibly be framed in the context of attending to the children's emotional, instrumental, and relational needs. The children's difficulties can be used as a strategy by the practitioners to enter the family in order to provide help for all the family members. Moreover, solutions should be sought within the cultural/religious context of the family. Family practitioners must make a sincere effort to engage the authority figure—typically the father—in the family in the search for solutions. Change will be impossible without the cooperation and support of the authority figure (Racy, 1980). In addition, family practitioners should use short-term, concrete, and goal-oriented approaches for working with non-Western families, such as the Arabs (Dwairy & Van-Sicker, 1996) and Bedouin-Arabs. Solutions which are overly philosophical or abstract may be rejected by the Bedouin-Arab clients (Lev-Wiesel & Al-Krenawi, in press). Family practitioners should attempt to reject Eurocentric or judgmental attitudes toward Bedouin-Arab family structure.

Finally, the value base of such interventions could be reinforced by the cultural canons of Islam. The Koran clearly emphasizes the husband's imperative to treat his wives equally. Other Islamic ideals that are implicit to the interventions include harmony with others, peace in the family, and ensuring children's well-being (Al-Krenawi & Lightman, in press). Further research is needed in order to assess the function of the polygamous family, and the communications patterns within and among senior and junior wives and their children.

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LORIANN BELFIORE
 Notary Public State of New York
 No. 01BEG215043
 Qualified in Suffolk County
 Commission Expires: Dec. 21, 2013

H.H.S.P

This is Exhibit "D" referred to in the
 affidavit of Susan Sticker
 sworn before me at Northport NY
 this 9th day of JULY, 20 10

Loriann Belfiore
 A Commissioner for taking Affidavits
 for the State of New York

A COMPARISON OF FAMILY FUNCTIONING, LIFE AND MARITAL
 SATISFACTION, AND MENTAL HEALTH OF WOMEN IN
 POLYGAMOUS AND MONOGAMOUS MARRIAGES

ALEAN AL-KRENAWI & JOHN R. GRAHAM

ABSTRACT

Background: A considerable body of research concludes that the polygamous family structure has an impact on children's and wives' psychological, social and family functioning.

Aims: The present study is among the first to consider within the same ethno-racial community such essential factors as family functioning, life satisfaction, marital satisfaction and mental health functioning among women who are in polygamous marriages and women who are in monogamous marriages.

Method: A sample of 352 Bedouin-Arab women participated in this study: 235 (67%) were in a monogamous marriage and 117 (33%) were in a polygamous marriage.

Results: Findings reveal differences between women in polygamous and monogamous marriages. Women in polygamous marriages showed significantly higher psychological distress, and higher levels of somatisation, phobia and other psychological problems. They also had significantly more problems in family functioning, marital relationships and life satisfaction.

Conclusion: The article calls on public policy and social service personnel to increase public awareness of the significance of polygamous family structures for women's wellbeing.

INTRODUCTION

A considerable body of research concludes that a polygamous family structure has an impact on children's and wives' psychological and social functioning (Al-Krenawi & Graham, 1999; Al-Krenawi *et al.*, 1997; Elbedour *et al.*, 2002). But little research examines the experiences of women who are in monogamous marriages versus those in polygamous marriages. To this end, this study is among the first to consider within the same ethnoracial community such essential factors as family functioning, life satisfaction, marital satisfaction and mental health in women who are in polygamous marriages and women who are in monogamous marriages.

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POLYGAMY AND THE BEDOUIN-ARAB OF THE NEGEV IN CONTEXT

Anthropologists define polygamy as a marital relationship involving multiple wives (Low, 1988, p. 189). This paper considers one such phenomenon, polygyny (hereafter polygamy), where one husband is married to two or more wives. In cultures covering more than 850 societies across the globe, including Africa, Asia, the Middle East, North America and Oceania, such expanded family structures are known to occur (Hartung, 1982; Valsiner, 1989). In some practicing societies, rates of polygamy may include up to 50% of all marriages (Caldwell & Caldwell, 1993). In the Arab world, Chaleby found 8% to 13% of all Kuwaiti marriages to be polygamous; in neighboring countries, rates were higher (Chaleby, 1985).

In polygamous marriages, the life satisfaction of wives is often influenced by wife-order. Depending on the community, the older or younger wives may attest to greater happiness. Marital satisfaction is also influenced by the husband's supportiveness, maternal employment and the age of the husband (Elbedour *et al.*, 2002). Those senior wives who have poor life satisfaction often see themselves as having failed to meet the standards of a successful wife set by their husband and the community (Al-Krenawi, 2001; Al-Krenawi & Graham, 1999). Many such women report somatic symptoms such as body aches, headaches, insomnia, fatigue, breathlessness and nervousness (Al-Krenawi & Graham, 1999) and those who are perceived as old by their husbands often have low self-esteem (Al-Krenawi, 2001). Other influencing factors include the different number of unions in a family, the cultural view of polygamy, wife-order and whether polygamy is imposed on or initiated by the senior wife (Hassouneh-Phillips, 2001a, 2001b, 2001c).

Women living in areas of higher prevalence of polygamy often experience limited economic resources, stemming in part from the husband's commensurately stretched resources (Al-Krenawi & Graham, 1999) and in part from low education attainment and the rare opportunity to work outside of the home and be paid (Agadjanian & Ezeh, 2000). Such women may perceive an unequal treatment among wives, and typically dislike this inequity. However, the expression of these feelings may not occur because of women's subordination or the inequality of resources (Agadjanian & Ezeh, 2000; Hassouneh-Phillips, 2001c). In areas where polygamy is less frequent, husbands and wives are more likely to engage in family planning and discussions surrounding the number of children and wives within the family (Agadjanian & Ezeh, 2000). In some communities, women in polygamous relationships report being abused by their husbands or other wives (Hassouneh-Phillips, 2001c), and for some populations the incidences of psychiatric disorders, low self-esteem and loneliness are higher for women in polygamous relationships (Al-Krenawi, 2001). Research has found increased rates of mortality among children of polygamous unions (Strassmann, 1997), especially if the mother is the first wife, the environment at home is stressful, parental investment is low, and resources are diluted; however, results regarding polygamy and associated issues of fertility are mixed (Elbedour *et al.*, 2000; Welch & Glick, 1981).

Some research points to advantages associated with polygamy. They include sharing household workload, site companionship and socialising with other women, greater autonomy because of help with childcare and other responsibilities, and the intention to increase fertility rates within the family (Anderson, 2000). Childless wives are more likely to be in polygamous marriages than are other wives (Gage-Brandon, 1992; Sichona, 1993). When the relationships between wives improve, other familial relationships tend to improve (Al-Krenawi, 1998).

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Research shows that two-wife unions (cowives) may be more stable than families of three or more wives (Gage-Brandon, 1992).

The present study is based on a sampling of Bedouin-Arab women in the Negev, Israel. All are Muslim. Islam allows a man to marry up to four wives, providing he possesses the material means to support the wives, and treats each wife equally (Abu-Baker, 1992). The Bedouin-Arab is a general term for all Arabic-speaking tribes in the Arab Middle East. The Bedouin have been in the region since before Islam or Christianity became established religions. Traditionally nomadic, the Bedouin are a diverse collective, but tend to share such attributes as authoritarianism, collectivism and patriarchy (Barakat, 1993). Today, of the Negev's 130,000 Bedouin, 50% live in villages that are officially recognised by the state of Israel and 50% live in villages that are not. The latter are under continual threat of destruction by state structures, and lack basic infrastructures and services.

Subjected over the course of a couple of decades to a radical transition to living in recognised and unrecognised villages, the Bedouin's traditional way of life has been transformed, and their social structures reflect their minority status in Israel. There is a clash between mainstream Israeli and traditional Bedouin-Arab cultures. Formerly, women contributed significantly to the family's way of life within a pastoral economy; now, there is no comparable role within the imposed transition to a modern economic structure. Those Bedouin men who are employed tend to have left the traditional economy of domesticity to work in mainstream Israeli society. But both women and, to a lesser extent, men have been left behind in this massive social transformation. Unemployment rates among the Negev's Bedouin are as high as 55%, and secondary school drop-out rates reach 40%. Family structures continue to promote high birth rates (Marx, 2000; *Statistical Yearbook of the Negev Bedouin*, 2004).

METHODOLOGY

In order to provide representative sampling for each village, the researchers randomly selected families from lists of residents in each of the seven recognised towns and villages. From this, they chose 222 women according to the percentage of residents in each town and village. From comparable lists of residents in 45 unrecognised villages, they undertook a clustered sampling of 154 women from nine unrecognised villages. From the list they randomly chose families from every village while taking into consideration the size of the village, compared with the total amount of the unrecognised villages.

The final sample included 352, of whom 235 (67%) were in a monogamous marriage and 117 (33%) were in a polygamous marriage. Only one woman per family unit was interviewed. The average age of the monogamous women was about 35 ($M = 34.9$, $SD = 11.69$) compared with about 39 ($M = 39.46$, $SD = 11.29$) for polygamous women ($p < 0.001$). The mean age of the total sample was about 36 ($M = 35.88$, $SD = 11.82$) (see Table 1).

Because of cultural norms, only women conducted the research. Ten Bedouin-Arab students from Ben-Gurion University of the Negev were trained to collect data according to culturally competent methods. In order to facilitate the research, the data collectors tended to be from, or near to, the village in which data were collected. Questionnaires were structured; data collectors were present during the interview, completed the questionnaire forms with the respondent and, for those with limited reading or writing skills, the researchers read to the

respondent and filled in the questionnaire according to the given responses. It should be noted that the students were paid for their work.

Five research instruments were used:

(1) Sociodemographic variables

The variables were as follows: the wife's age, her age at the time of marriage, the wife's education, husband's age when married, husband's education, husband's age, number of children, wife's economic status, type of family (polygamous or monogamous marriage), polygamy in her family (her father), blood relationships between the woman and her husband (endogamous marriage)

(2) Family function

We used the McMaster Family Assessment Device (FAD) that was developed by Epstein and colleagues (Epstein *et al.*, 1983; Miller *et al.*, 1985). It includes 60 items on seven dimensions of family functioning: problem solving, communication, roles in the family, emotional involvement, behavior control, emotional responses and general functioning. All subscales range from 1 to 4, with higher scores indicating more problems in a family's functioning. Section points discriminating between 'clinical' and 'normal' families in American populations are available, although there are none for Israeli families. The scale has satisfactory reliability (Cronbach's alpha = 0.72-0.92), good test-retest reliability ($r = 0.66$) and high validity, as indicated by comparing the scale's scores with other measures of the same matters (Epstein *et al.*, 1983; Miller *et al.*, 1985). The scale was used in studies of Israeli Jewish adolescents (Slonim-Nevo & Shraga, 1997) and its internal reliability in this population was intermediate (Cronbach alpha = 0.36-0.82).

At this stage we only analysed the 12 items that assess the family's general functioning. A recent study (Ridenour *et al.*, 1999) found that these 12 items give a satisfactory picture of the family's general functioning, and there is no need to use all 60 questions. Among women the reliability of the subscale was high (Cronbach's alpha = 0.88, $N = 367$).

(3) Marital satisfaction

We used the ENRICH questionnaire, whose original details were selected following a comprehensive overview of the literature on marital problems and interpersonal conflicts (Fournier & Olson, 1986, cited in Lavee *et al.*, 1987). The questionnaire, which measures satisfaction with marriage and quality of adjustment to it, is divided into eight parts, each containing 10 items. Several studies (Fournier *et al.*, 1983, cited in Lavee *et al.*, 1987) found that it has a rather high reliability (Cronbach's alpha = 0.88-0.89). Other studies indicated a high degree of discriminating validity and concurrent validity.

The questionnaire was translated into Hebrew and adapted by Lavee from Haifa University. It contains 95 statements used for clinical discrimination. Research that used the instrument in Arab society in Israel (Lev-Wiesel & Al-Krenawi, 1999) found a satisfactory level of internal reliability (Cronbach's alpha = 0.89, $N = 291$). In this survey, we used the shortened version of the ENRICH questionnaire composed by Lavee that includes 10 items, each rated on a Likert scale ranging from 1 (less) to 5 (greater satisfaction). The internal reliability of the shortened version among the women in the current study is very high (Cronbach's alpha = 0.96, $N = 346$).

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(4) Life satisfaction (SWLS)

We used the Diener *et al.* (1985) scale, which consists of five items examining life satisfaction. It uses a Likert scale ranging from 1 (low) to 7 (higher satisfaction); the scale has high internal reliability (Cronbach's alpha = 0.87) and good stability examined by test-retest reliability ($r = 0.82$). Diener *et al.* (1985) tested the validity of the scale by comparing it with existing scales finding good validity. The internal reliability in the current research was satisfactory (Cronbach's alpha = 0.80, $N = 375$).

(5) The Brief Symptom Inventory (BSI)

The Brief Symptom Inventory (BSI) is a shortened version of the Hopkins Symptom Checklist (H-SCL-90) and is used as a screening instrument to measure psychiatric symptomatology (Derogatis & Melisaratos, 1983; Derogatis & Spencer, 1982). It includes 53 items that elicit perceptions of symptoms during the last month. The nine dimensions of the BSI are: somatization, interpersonal sensitivity, obsession-compulsion, depression, anxiety, hostility, phobic anxiety, paranoid ideation and psychoticism. In addition, the scale provides a General Severity Index (GSI), a Positive Symptom Index (PSDI) and a Positive Symptoms Total (PST).

The BSI has been used in several studies to assess the mental health of Soviet, American and Israeli adolescents (Canetti *et al.*, 1994; Slonim-Nevo & Shraga, 1997). All scales range from 0 to 4, with higher scores indicating more problems with mental health. For the purposes of this study, the BSI was translated into Arabic using back-translation. The internal consistency of the nine subscales is adequate (Cronbach's alpha = 0.71–0.81) and an adequate level of reliability was found to exist through test-retest analysis ($r = 0.60$ – 0.90). The internal reliability of the current measure in general and of its subscales was measured in a Jewish research population (Slonim-Nevo & Shraga, 2000) with reasonable results (Cronbach's alphas ranged from 0.62 to 0.90).

It should be noted that all of the research instruments were translated into Arabic by a professional translator, fluent in both Arabic and English, and then they were independently translated back into English to ensure the accuracy of translation.

FINDINGS

Table 1 presents the demographic characteristics of the two study groups. Regarding the whole sample, most of the women have children (90%), the average number of children is $M = 5.47$, 33% of the families are polygamous, half of the women's fathers are polygamous (51%), most of the marriages are endogamous marriages from within the extended family or the tribe.

The results present differences between the two study groups. The results are irrespective of the women's order in polygamous families. The husbands and wives in monogamous marriages tend to be younger than the husbands and wives in polygamous marriages. For the women $M = 34.09$ and $M = 39.46$ respectively ($p < 0.001$) and for the husbands $M = 36.97$ and $M = 46.19$ respectively ($p < 0.001$). The average number of children in monogamous families is $M = 4.92$, $SD = 3.25$, whereas for polygamous families the average number of children is $M = 6.56$, $SD = 3.55$. The women in polygamous marriages reported

Table 1
Sociodemographic characteristic of the sample (women in polygamous and monogamous families)
(means, standard deviation and chi-square test)

Variables	Value	Total sample N = 352	Monogamous N = 235	Polygamous N = 117
Age of the wife		M = 35.88 SD = 11.82	M = 34.09 SD = 11.69	M = 39.46*** SD = 11.29
No. of years of education		M = 5.29 SD = 5.3	M = 6.38 SD = 5.58	M = 3.52*** (SD = 4.44)
Economic status	Very good	36%	38%	33%
	Somewhat good	49%	48%	50%
	Not good/not good at all	15%	14%	17%
Number of children		M = 5.47 SD = 3.43	M = 4.92 SD = 3.25	M = 6.56*** SD = 3.55
Husband's age		M = 39.96 SD = 12.51	M = 36.97 SD = 12.11	M = 46.19*** SD = 10.97
Your age when you married		M = 19.37 SD = 3.60	M = 19.47 SD = 3.39	M = 19.16 SD = 4.00
Your husband's age when you married		M = 24.29 SD = 7.64	M = 22.95 SD = 5.15	M = 26.99*** SD = 10.59
How many wives does your husband have?				M = 2.27 SD = 0.53
Is your father married to more than one woman?	Yes	51%	43%	68%***
	No	49%	57%	33%
How many wives does your father have?		M = 2.47 SD = 0.84	M = 2.39 SD = 0.88	M = 2.58 SD = 0.75
What kind of blood relations are between you and your husband?	None	29%	26%	34%
	Father's side	35%	35%	33%
	Mother's side	9%	11%	4%
	Both parents	9%	10%	6%
	Relation exists, but is distant	19%	17%	23%

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

that 68% of their fathers are polygamous in comparison to only 43% of the women in monogamous marriages ($p < 0.001$).

Table 2 revealed that women in polygamous marriages showed significantly more psychological distress than their counterparts in monogamous marriages. They reported higher levels of somatisation ($p < 0.001$), obsession-compulsion ($p < 0.001$), depression ($p < 0.001$), interpersonal sensitivity ($p < 0.001$), hostility ($p < 0.001$), phobia ($p < 0.001$), anxiety ($p < 0.001$), paranoid ideation ($p < 0.001$), psychoticism ($p < 0.001$), GSI-general symptom severity ($p < 0.001$), PST ($p < 0.001$) and PSDI ($p < 0.001$). In addition, women from polygamous families reported significantly more problems in family functioning ($p < 0.001$), more problems in the marital relationship ($p < 0.001$) and less satisfaction in life ($p < 0.001$).

In short, the findings show that in every dimension - psychological, life satisfaction, marital and familial - women from polygamous families report more difficulty than their counterparts from monogamous families.

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Table 2
Family functioning, marital relationships, psychological and life satisfaction of women in polygamous and monogamous marriages (means, standard deviation and F values)

Name of scale	Total sample <i>N</i> = 352	Polygamous <i>N</i> = 117	Monogamous <i>N</i> = 235	<i>F</i> value
Family functioning FAD (1)	<i>M</i> = 2.22 <i>SD</i> = 0.57	<i>M</i> = 2.43 <i>SD</i> = 0.51	<i>M</i> = 2.05 <i>SD</i> = 0.83	<i>F</i> = 41.14***
Marital relationship (Enrich) (2)	<i>M</i> = 2.41 <i>SD</i> = 1.01	<i>M</i> = 2.80 <i>SD</i> = 1.10	<i>M</i> = 2.06 <i>SD</i> = 0.51	<i>F</i> = 50.36***
Mental health (BSI) (3)				
Somatisation	<i>M</i> = 1.02 <i>SD</i> = 0.95	<i>M</i> = 1.36 <i>SD</i> = 1.06	<i>M</i> = 0.76 <i>SD</i> = 0.76	<i>F</i> = 37.01***
Obsessive-compulsive	<i>M</i> = 1.02 <i>SD</i> = 0.83	<i>M</i> = 1.34 <i>SD</i> = 0.89	<i>M</i> = 0.79 <i>SD</i> = 0.68	<i>F</i> = 41.88***
Interpersonal sensitivity	<i>M</i> = 1.02 <i>SD</i> = 0.87	<i>M</i> = 1.27 <i>SD</i> = 0.98	<i>M</i> = 0.81 <i>SD</i> = 0.69	<i>F</i> = 26.45***
Depression	<i>M</i> = 0.86 <i>SD</i> = 0.84	<i>M</i> = 1.14 <i>SD</i> = 0.90	<i>M</i> = 0.62 <i>SD</i> = 0.64	<i>F</i> = 39.48***
Anxiety	<i>M</i> = 1.14 <i>SD</i> = 0.87	<i>M</i> = 1.42 <i>SD</i> = 0.91	<i>M</i> = 0.92 <i>SD</i> = 0.73	<i>F</i> = 31.16***
Hostility	<i>M</i> = 1.01 <i>SD</i> = 0.89	<i>M</i> = 1.35 <i>SD</i> = 0.95	<i>M</i> = 0.77 <i>SD</i> = 0.72	<i>F</i> = 39.72***
Phobia	<i>M</i> = 0.97 <i>SD</i> = 0.86	<i>M</i> = 1.23 <i>SD</i> = 0.97	<i>M</i> = 0.79 <i>SD</i> = 0.71	<i>F</i> = 23.2***
Paranoia	<i>M</i> = 1.17 <i>SD</i> = 0.98	<i>M</i> = 1.47 <i>SD</i> = 1.01	<i>M</i> = 0.92 <i>SD</i> = 0.83	<i>F</i> = 29.35***
Psychoticism	<i>M</i> = 0.86 <i>SD</i> = 0.82	<i>M</i> = 1.14 <i>SD</i> = 0.93	<i>M</i> = 0.64 <i>SD</i> = 0.63	<i>F</i> = 34.3***
GSI	<i>M</i> = 1.02 <i>SD</i> = 0.77	<i>M</i> = 1.31 <i>SD</i> = 0.83	<i>M</i> = 0.79 <i>SD</i> = 0.60	<i>F</i> = 44.02***
PST***	<i>M</i> = 28.69 <i>SD</i> = 15.42	<i>M</i> = 33.90 <i>SD</i> = 15.06	<i>M</i> = 25.11 <i>SD</i> = 14.60	
PSDI***	<i>M</i> = 1.74 <i>SD</i> = 0.6	<i>M</i> = 1.92 <i>SD</i> = 0.60	<i>M</i> = 1.58 <i>SD</i> = 0.51	
Life satisfaction (SWLS) (4)	<i>M</i> = 4.24 <i>SD</i> = 1.47	<i>M</i> = 3.88 <i>SD</i> = 1.39	<i>M</i> = 4.58 <i>SD</i> = 1.36	<i>F</i> = 19.89***

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

(1) The scale ranges from 1 to 4, with higher value indicating more problems in family functioning

(2) The scale ranges from 1 to 5, with higher value indicating less satisfaction with the marriage

(3) The scale ranges from 0 to 4, with higher value indicating more mental problems

DISCUSSION

The findings present the first major survey research ($N = 352$) comparing the experiences of women from polygamous and monogamous marriages in the Negev. Data reveal many significant differences between women from polygamous and monogamous marriages. On socioeconomic grounds, women in monogamous marriages tended to be younger and more

educated, and reported a higher respective economic status. Previous research suggests that education and attitudinal acceptance of polygamy are inversely correlated (Heaton & Hirschl, 1999; Maziak *et al.*, 2002; Nevadomsky, 1991); other findings are less conclusive (Nevadomsky, 1991). The Bedouin-Arab community is in a massive state of transition, part of which includes higher attainment for youth. Respondents in monogamous marriages therefore may have had greater opportunity for education; and the potential for less acceptance of polygamy may be modestly influential on the cohort. Data show differences in economic status, with women in monogamous marriages reporting better economic status than those in polygamous marriage. One associated factor could be family size. As Table 1 also shows, the number of children in polygamous marriages is significantly higher than for monogamous families; in the former, there are more children for whom resources are required.

The issue of economic status raises the cultural practice of encouraging polygamy only if the man has sufficient economic resources. Studies on other practicing societies, in contrast to our data, correlate wealth with polygamy (Abu-Lughod, 1986). Broader economic factors are especially influential. Rates of unemployment and underemployment are high among Bedouin of the Negev. Traditional means of wealth, in a traditional society, have been transformed by modernisation, which stresses high technology, capital accumulation and structures of wealth generation that do not exist in Bedouin communities. The Bedouin-Arabs are culturally, and many are linguistically, outside of the Israeli mainstream. Government policies could fruitfully emphasise processes to include the Bedouin in the economic mainstream, in terms of hiring practices, improvements to educational systems and strategies of Bedouin student recruitment and retention. Here, we need to emphasise the significance of children in polygamous marriages. Previous research points out the lower rates of academic achievement and higher rates of psychological distress among children of polygamous families in the Negev (Al-Krenawi *et al.*, 1997; Al-Krenawi & Graham, 2001). Moreover, mothers from polygamous families are found to have lower levels of education than those from monogamous families; some researchers imply that a cycle of low educational attainment within polygamous families can be multigenerational (Elbedour *et al.*, 2002).

The findings reveal a significant association between the marital structure of the woman's father, and that of his daughter. Table 1 suggests that women are more likely to be in a polygamous marriage if their father is also in one. Further investigation is clearly required. Some respondents may have grown up in polygamous familial contexts, or may be familiar with polygamy through grandparents or other close relatives. In all respects, the previous practice of polygamy within a family could well pave the way for its acceptance in the present generation. A second, equally intriguing factor for both cohorts is endogamous marriage. Table 1 reveals upwards of 70% of people in an endogamous context; sometimes this occurs within the extended family via first cousins, in others it is within the tribe. The data also indicate that endogamous marriages are more common from a patrilineal rather than matrilineal tradition. In all instances, genetic and biological problems so associated could interfere with the community's immediate and long-term wellbeing. For example, there may be risks to newborns of various birth defects, from deafness to developmental delay, all of which requires further and more extensive research (Meiner *et al.*, 2001).

Table 2 provides compelling evidence regarding the myriad psychosocial problems associated with polygamy. Problems in family functioning and marital relationships are much

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higher among polygamous respondents than among monogamous respondents. A great deal of research establishes that polygamous families experience a higher rate of marital conflict, family violence and family disruption than do monogamous families (Al-Krenawi, 1998; Elbedour *et al.*, 2000). Marital troubles, conflict and distress have a direct effect on the mental health of children (Elbedour *et al.*, 2002), which in turn could exacerbate marital tensions, creating a downward cycle of conflict. Among children, these events may predict poor social competence, lack of a sense of security (Davies *et al.*, 1996), poor academic achievement (Emery & O'Leary, 1982), behavioral problems and aggression (Cummings *et al.*, 1984; Rutter, 1975), hostile interactions (Katz & Gottman, 1993) and elevated heart rates (El-Sheikh, 1994). Marital conflict is also likely to disrupt effective parenting and parental involvement (Engfer, 1988), and has lasting effects on relationships between parents and children. A negative appraisal of the marital relationship and increased rates of negative behavior by husbands are related to negative sibling interaction, as well as negative mother-child interaction (Krishnakumar & Buehler, 2000; Pederson *et al.*, 1977).

Turning to marital quality, research shows that polygamous marriages are more likely than monogamous marriages to be affected by spousal conflict, tension and jealousy (Achte & Schakit, 1980; Ware, 1979). The mothers and children in particular are predisposed to psychological problems (Al-Issa, 1990; Eapen *et al.*, 1998). Often these women are unhappy, and the addition of new wives can be very distressing and can be perceived as a very traumatic and abusive experience (Hassouneh-Phillips, 2001c). Relationships between cowives, and between the in-laws, may be strained; and the children of the subfamilies may be in mutual conflict (Al-Krenawi *et al.*, 1997). Jealousy, competition and acrimony between cowives and between the children in each of the subfamilies are also common (Al-Krenawi & Graham, 1999, 2001). Literature suggests that marital distress is linked with suppressed immune function, cardiovascular arousal, psychosocial distress and increases in stress-related hormones (Al-Krenawi *et al.*, 2001; Brown & Smith, 1992; Gottman, 1994; Gottman & Notarius, 2000; Kiecolt-Glaser *et al.*, 1987). Because many women in polygamous societies are unemployed they are economically dependent on others and often feel pressured to marry into a polygamous family and remain in these relationships (Elbedour *et al.*, 2002). The mother's distress can reduce her level of caring, supervision and involvement, and can lead to withdrawal, depression and hostility. These risk factors (marital conflict, marital distress, financial distress) are assumed to mediate and/or moderate the relationship between polygamous marital structure and adjustment levels in children (Elbedour *et al.*, 2002).

Women in polygamous marriages scored significantly higher ratings in all psychological dimensions in the BSI: somatisation, interpersonal sensitivity, depression, anxiety, phobic anxiety, paranoid ideation, psychoticism and GSI. These may be associated with stresses common to women in polygamous marriages, be it economic, relational between children, father, or in-laws, or other problems. As previous research indicates, somatisation may be more prevalent in the non-western world than in the west (Al-Issa, 1995; Kirmayer, 1984). Thus, higher somatisation scores among respondents in the present study may be grounded ethno-racially, and may be associated with Arab peoples' relative abilities to express emotional distress (Al-Krenawi & Graham, in press; Al-Issa, 1995, p. 21). Arab women commonly experience somatic complaints. As one scholar points out in research on Saudi women, 'negative feelings, unhappiness and conflict, both within herself and between her and members of her family are readily translated into somatic terms, since physical symptoms in that culture

are safe, morally acceptable, and generally lead to some form of help-seeking' (Racy, 1980, p. 213).

Not surprisingly, the high scores in family functioning and marital distress in the BSI also coincide with lower life satisfaction. Here, we need to stress the nature of marital life in Bedouin culture, where a woman's maternal and wifely roles are the key to her female identity. Polygamy may be seen to compromise these roles, reducing a woman's social status and self-esteem, and coinciding with myriad social and psychological problems as discussed, all of which may exacerbate underlying and precipitating problems.

It should also be noted that only 4% of women from both polygamous and monogamous cohorts sought or were referred to psychological or mental health services. These high rates of underutilisation are in stark contrast with the problems that women, particularly those in polygamous marriages, experience. Some 84% of women in the entire sample, in contrast, used primary healthcare centers in or close to their communities. Somatisation provides legitimacy to seek care; higher rates of somatic complaints may be partially associated with the use of primary health services in order to respond to psychosocial problems (Al-Krenawi & Graham, in press). Considerable prospects exist for carrying out psychosocial interventions in such primary healthcare settings, which act as a non-stigmatising, legitimate form of medical treatment that does not breach Bedouin-Arab cultural norms.

CONCLUSION

In attempting to explain the contradictions in the existing literature regarding the practice of polygamy and its effects on the family, the authors 'posit that polygamy represents a culturally bound phenomenon, and the variations in findings reflect, at least in part, the different cultures, beliefs, and subgroups characterizing the various polygamous participants across studies' (Elbedour *et al.*, 2002, p. 261).

Polygamous family structures therefore have the paradoxical effect of furthering those structures that lead to poverty and to other psychosocial problems. Awareness of the implications is the first step in addressing them. So too is it essential to recognise the inter-relationship between polygamy and other social statuses. For example, physical abuse, illiteracy and polygamy are associated with mental distress (Maziak *et al.*, 2002). How to respond to these social issues? We emphasise a process of including community structures in all areas of problem identification and resolution. Imposing solutions on the community would justifiably be perceived as yet another instance of hegemony – of imposing mainstream values and norms on the Bedouin-Arab. A far better strategy is to use indigenous ways of constructing and responding to problems.

Education is a critical factor in how the community responds to polygamy. The practice is highly sensitive. In its grounding to Muslim and Bedouin-Arab histories, it is one cultural aspect that distinguishes the community from mainstream Israeli life, and provides in part an aspect of identity. Any changes associated with the practice need to occur sensitively, and must be situated organically within the community rather than imposed from without. Here, the future of the community's next generations is a potentially key point of entry that could unite the community towards the common ground of addressing problems associated with polygamy. The devastation that women and, by extension, children experience from

polygamy can be far reaching. A first step in improving a community's ability to address these problems is to transfer knowledge regarding the difficulties with which polygamy is associated. The findings in the present study are therefore potentially powerful. Future studies could profitably determine optimal strategies of transferring this knowledge to the community, and of establishing and monitoring reciprocal processes of collaboration between researchers, practitioners, policy makers and powerful community members.

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Learning Achievement, Social Adjustment, and Family Conflict Among Bedouin–Arab Children From Polygamous and Monogamous Families

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LORIANN BELFIORE
Notary Public, State of New York
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Qualified in Suffolk County
Commission Expires: Dec. 21, 2013

This is Exhibit "E" referred to in the
affidavit of Susan Stickeres
sworn before me at Northport NY
this 9th day of JULY, 20 10

Loriann Belfiore
A Commissioner for taking Affidavits
~~for British Columbia~~
for NY State

ABSTRACT. A sample of 146 Bedouin–Arab pupils from polygamous and monogamous families participated in this study, which was conducted in a Bedouin–Arab village in the Negev, Israel. The authors compared learning achievement, social adjustment, and family conflict. Data revealed differences between the two groups: The children from monogamous families had higher levels of learning achievement than did the children from polygamous families; in addition, those from monogamous families adjusted to the school framework better than did those from polygamous families. The mean conflict rating of children from polygamous families was higher than that of their counterparts from monogamous families. The father's level of education tended to be inversely correlated with family size in terms of both number of children and number of wives.

LARGE FAMILY SIZE may carry with it a variety of social problems (Fischer, 1984; Guendelman, 1985; Jejurikar & Shenvi, 1985; Kahn & Kamerman, 1983; Ward, 1987); such problems may be aggravated when associated with polygamy. Polygamous families have their own distinct household problems, usually stemming from jealousy between co-wives over the affections and resources of the husband (Adams & Mburugu, 1994; Kilbride, 1994; Mulder, 1992; Wittrup, 1990). Relationships within the family are further complicated by the presence of children of different mothers: The husband's perceived

A copy of the conflict questionnaire developed for this study is available upon request.

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favoritism for one wife's children or the efforts of each wife to secure more resources for her own children are additional sources of friction (Dorjahn, 1988). Despite widespread interest in polygamy (Al-Krenawi, 1998; Chamie, 1986), relatively little research has compared the children from polygamous with those from monogamous families.

Ware (1979) has described the strong social pressures in some societies to accept polygamy, which is practiced widely in the Middle East, Africa, Asia, and Oceania, but is also known to occur in Europe and North America (Broude, 1994). It is often associated with social systems in which human resources are among the most important. In contrast, "where resources such as land or forms of private property predominate, monogamous nuclear family forms tend to be the rule" (*Macmillan Dictionary of Anthropology*, 1986, p. 228).

Among the Bedouin Arabs of the Negev, when the husband takes another wife, the preceding wives are perceived by the community, and perceive themselves, as having been relegated to a lower status. This naturally causes them emotional distress (Al-Krenawi, 1998). Several researchers have commented on the adverse emotional effects of polygamy, on both co-wives and children (Low, 1988; Oyefeso & Adegoke, 1992; Pela, 1984; Rivett & Street, 1993; Valsiner, 1989). Chaleby (1987) mentions the disproportionate number of polygamous wives, particularly the senior (earlier) wives, among psychiatric outpatients in Kuwait. This finding has been recorded in a number of societies—for example, in Nigeria (Makanjuola, 1987) and in other societies in Africa (Welch & Block, 1981), in the Arab world (Al-Issa, 1990; Al-Krenawi, 1998; Chaleby, 1985; Tabutin, 1974); and in India (Haggi, 1974).

Owuamanam (1984) pointed out that polygamous families have more negative self-concepts because of sibling competition for position. D'Hondt and Vandewiele (1980) found that the majority of the high school students whom they surveyed in Senegal were against polygamy. Because each subfamily within the main family acts as a separate system headed by the mother (who takes care of her own children), jealousy, competition, and fighting among the different wives lead to their children's regarding the children of the other wives not as siblings but as enemies (Al-Krenawi, 1998). The resulting hatred and hostility affect the children both emotionally and socially (Al-Krenawi, Graham, & Al-Krenawi, 1997).

The Bedouin Arabs of the Negev

The term *Bedouin* was originally intended to describe only those people who herded camels, but it has become the generic name for all Arabic-speaking, nomadic tribes in the Middle East (Kay, 1978). The Bedouin have lived in the Negev region for two millennia (Klizner, 1954) and should be considered a distinct national, linguistic, political, and geographic entity in Israel, although they are related to members of Bedouin-Arab communities in other countries. Today,

the Bedouin Arabs of the Negev are undergoing a rapid and dramatic process of sedentarization: Of the Negev's 120,000 Bedouin Arabs, 40% now live in villages and towns, and the remainder (60%) live in unrecognized villages, without any infrastructure or services (Al-Krenawi & Graham, 1997). Bedouin-Arab children suffer substantial disadvantages within the Israeli education system, which are manifested by high drop-out rates, a low percentage of high school graduates, and the failure of most graduates to matriculate in a postsecondary institution. Each year, there are between 800 and 1,000 high school graduates among the 120,000 Bedouin Arabs of the Negev area, and of the 20% who try for matriculation, only about 60% succeed (Fishkoff, 1997).

The society is largely traditional, and, thus, a slower pace of change and a higher sense of social stability predominate (Hall, 1976); the collective is emphasized over the individual. To a considerable extent, social status, economic security, and the potential for personal development continue to be founded upon tribal identity. Because the Bedouin Arabs were historically a warrior people, the larger the tribe, the more powerful it is in the hierarchy of status. Each tribe is led by a sheik, and major decisions are made by a forum of male elders representing the several extended families that constitute the tribe (Al-Aref, 1934; Marks, 1974).

As a partial consequence of this social structure, hierarchical order is also maintained within the family on the basis of the dominance of the male over the female and the older over the younger. Gender differences are strongly defined, and social structure is largely patriarchal. Men hold the authority of leadership in the household, in the economy, and in the polity (Al-Krenawi, 1996). As good wives and mothers, women are expected to spend most of their time at home and to sacrifice their own wishes for the sake of the family (Mass & Al-Krenawi, 1994). Women's social status is based on marriage and rearing children, especially boys. In Bedouin-Arab society, sons have higher status than daughters; as one saying puts it, "*Al-Aḥlād Lifaḥāh wā Al-banāt Liraḥāh*" [the boys for war time and the girls for song] (Ben-David, 1982). In discussions of how many children a man has, the count invariably includes only the sons (Al-Abadi, 1973; Kacen, Anson, Nir, & Livneh, 1992).

The majority of Bedouin-Arab marriages are arranged for girls in their early teens by parents or parent substitutes, without prior consultation with the girl concerned and, in some cases, even if she raises objections. Love in marriage is a rarity. Polygamy is still practiced, even among the young people: The first marriage is usually arranged, but the second may be by choice and, thus, closer to the Western concept of a "love match" (Al-Krenawi, 1996; Al-Krenawi et al., 1997).

Several variables contribute to the practice of polygamy among the Bedouin-Arab people. On religious grounds, the Koran (Surah 4:3) permits men to have multiple wives (Jawad, 1991). "Exchange marriages" are also quite common. These occur when two men are married to each other's sisters, and one of the men decides to take a second wife. The other man, in turn, experiences pres-

sure from his family to follow suit, to maintain a symmetry between the two family structures as well as the honor of his sister and, hence, of his family. There are other reasons for polygamy. A man may take a second wife if the first wife is not fertile, if she has not borne him sons, if she is physically or mentally ill, or if she cannot meet the husband's sexual needs. To enhance the status of his family and himself, the husband may select a new wife (or wives) to increase the number of his sons (Al-Krenawi et al., 1997). Polygamous marriages produce large numbers of children, so there is never any shortage of potential wives within the tribes. Men also have the option of marrying women from outside the Bedouin-Arab community (e.g., from the Gaza Strip, from the West Bank, from the north of Israel, and even from Jordan and Egypt). Chamie (1986) has reported that 2%–12% of marriages in the Arab world are polygamous. Although there are no hard data for the Bedouin Arabs in the Negev, the approximate proportion of polygamous marriages appears to be between 15% and 20%.

On the basis of the foregoing research regarding large families in general and polygamy in particular, as well as on the basis of an understanding of the structure of Bedouin-Arab society, we formulated the following hypotheses:

Hypothesis 1: The academic achievements of children from monogamous families are higher than those of children from polygamous families.

Hypothesis 2: Children from polygamous families exhibit more problems in social adjustment than do children from monogamous families.

Hypothesis 3: There are more conflicts in polygamous families than in monogamous families.

Hypothesis 3 is, perhaps, the most general and follows directly from the discussion about the effects of polygamy in other traditional societies (Oyefeso & Adegoke, 1992; Valsiner, 1989). Hypotheses 1 and 2 are based on the premise that internal family dysfunction is associated with difficulties in the formal school system. After reporting the findings, we discuss the longer term implications of these difficulties for direct practice intervention.

Method

We attempted to compare children in monogamous and polygamous Bedouin-Arab families by using both primary and secondary data. For purposes of the present study, we defined a polygamous family as one with two wives only (i.e., bigamous); thus, one should exercise caution in drawing inferences beyond this range. For consistency across the sample, the children chosen for this study were those of the senior wives within the polygamous families (Chaleby, 1985).

We selected the research population from pupils at a primary school in a Bedouin-Arab village in the Negev. We randomly chose the school (with 900 pupils and a range of kindergarten through Grade 6) from 10 schools in one of

the largest Bedouin-Arab towns. The principal and staff expressed their willingness to participate in the study; thus, the files of individual pupils and various data related to the school were made available to us. We did not seek signed consent of the parents, largely because of the traditional nature of the society: The support and endorsement of the school officials was deemed appropriate, and any further approval procedures would have been seen as excessive by the families.

We drew the sample from a total of 300 students (8-9 years of age) in Grades 3 and 4. The sample was equally divided by gender and between children from polygamous (two-wife) families and children from monogamous families. There were 39 boys and 34 girls in each group, a total of 146 children, representing roughly a 50% sampling rate. None of the children in the sample were siblings, but they were all from the same village.

We analyzed the data by using means, standard deviations, and *t* test.

We examined *academic achievement* on the basis of results of tests administered by the teachers in four subjects: Hebrew, Arabic, arithmetic, and reading comprehension. These tests were given at the end of the school year and recorded in each pupil's file. We took the marks from the files and calculated the average grades for each pupil in these four subjects.

We measured *adjustment to the school system* on the basis of an evaluation questionnaire developed at the Henrietta Szold Institute in Israel and used by classroom teachers across the country (Smilansky & Shefatiya, 1974). The questionnaire was translated into Arabic in consultation with the school's staff. Teachers were asked to grade the social adjustment of students by using a Likert-type scale (1 = *lowest level of adjustment*, 4 = *highest level of adjustment*). The measures on the scale included discipline, aggression, sociability, leadership, activeness, external appearance, perception, ability to concentrate, interest, ambition, perseverance, honesty, self-confidence, mental balance, mood, status as a scapegoat, acceptance by the teacher, and special phenomena (e.g., behavioral problems such as stuttering and bedwetting; other physical problems such as hearing or vision defects). We aggregated responses to the individual items under the following three headings, referring to three distinct areas of the child's adjustment to school life:

Adjustment to school life referred to the extent to which the child adjusts to the social life of the pupils, to class norms of behavior, and to relations with the general school environment (teachers, principal).

Adjustment to education norms encompassed adjustment in areas relating to the learning process in the classroom.

Adjustment to the society of peers referred to the relationships between the pupil and other children.

The delineation of categories was done by the researchers and, thus, has face validity. Scores for each indicator were aggregated and averaged for each child, resulting in individual values ranging from 1 to 4.

We examined *family conflict*, as perceived by the students, through a semi-structured pupils' questionnaire in Arabic, prepared especially for the present

study. We developed the questionnaire with extensive input from the school principal and teachers; thus, it has face validity. We used three areas of intrafamilial conflict: conflicts between fathers and children; conflicts between the children and their siblings; and conflicts between mothers and fathers. As before, we graded the children's responses to each question on a 4-point Likert-type scale, with higher scores indicating greater conflict. We then averaged the four answers to produce a single overall score with values ranging from 1 (*low conflict*) to 4 (*high conflict*).

We administered the questionnaire just described to all 146 students. Some of the polygamous families were known to the welfare services in the area; therefore, it was possible to obtain an informal and rough validity check on individual responses to the questionnaires.

Results

Demographic

The extended-family nature of this traditional society was reflected in the fact that about 50% of the children came from families in which the parents were close relatives (e.g., first cousins); the parents of the remaining 50% were more distantly related. We found no difference between the education levels of the mothers in the two types of families because none of them had attended school. However, the education levels of the fathers in the monogamous families were significantly higher, $p < .05$, than those of the fathers in the polygamous families (5.41 years and 3.18 years of schooling, respectively). This is an important finding for policy purposes. It appeared that the men with more years of schooling were significantly more likely to choose monogamous marriages; thus, as noted subsequently, the education level of the father tended to be inversely correlated with family size (both number of children and number of wives).

None of the mothers in either group worked outside the home. There was no difference in the range of occupations found among the fathers in both groups of families.

According to a comparison between the monogamous and the polygamous families, about 90% of the monogamous families had 10 children or fewer, whereas among their polygamous counterparts, the corresponding proportion dropped to about 30%. The mean number of children in the monogamous families was 5.92 ($SD = 3.42$); in the polygamous cases, the mean number of children was 11.33 ($SD = 4.54$). The difference is highly significant, $p < .01$, but not surprising.

Comparing Outcomes

The scholastic achievements of children in polygamous and monogamous families ($M = 70.14$, $SD = 20.21$, and $M = 83.39$, $SD = 16.74$, respectively) were

based on the grades recorded in their school files in the four subjects mentioned earlier. The difference between the two groups of children is highly significant statistically, as well as important quantitatively, $p < .01$, $t(142) = 4.28$. The variance in grades was also smaller in monogamous families, suggesting greater consistency of grade results as well. This finding, as we expected, supported Hypothesis 1.

We tested three categories of social adjustment in school. The results of a t test to examine the differences between children from the two types of family revealed that the children from monogamous families adjusted to the school framework better ($M = 3.15$, $SD = 0.59$) than did the children from polygamous families ($M = 2.89$, $SD = 0.63$), $p < .013$, $t(142) = 2.51$. We also found that children from monogamous families ($M = 3.23$, $SD = 0.65$) adjusted to the society of other children better than did the children from polygamous families ($M = 2.91$, $SD = 0.66$), $p < .004$, $t(142) = 2.91$. The difference in adjustment to classroom norms was not significant at the .05 level, $p < .066$, although the mean scores were generally close in value to those of the other two categories.

The first two categories yielded results that were statistically significant and in the direction expected, whereas the differences in adjustment to class norms (the learning process) were close to the .05 significance level. Hypothesis 2 was supported in large part, in that children from polygamous families experienced greater difficulty in adjusting both to the classroom environment and to relations with other children, the teachers, and the principal. The social problems of the home environments of the polygamous families (Al-Krenawi et al., 1997), it appears, spilled over into the education arena and impeded the children's social adjustment to school.

According to an analysis of the findings regarding the differences between the two groups in intrafamilial conflicts, the conflict rating of children from polygamous families ($M = 1.80$, $SD = 0.31$) was higher than that of children from monogamous families ($M = 1.60$, $SD = 0.27$), $p < .01$, $t(142) = 4.08$. Thus, this part of Hypothesis 3 was supported. However, Hypothesis 3 was not supported at the paternal level; there were no significant differences between family types in conflict between fathers and either children or mothers. Given that the data were reported directly by the children, the findings may reflect the social unacceptability in a traditional society of discussing in public anything that would reflect badly on one's father (Mass & Al-Krenawi, 1994).

Discussion

The results of the present study have confirmed the obvious expectation that polygamous families are significantly larger than their monogamous counterparts within a traditional Bedouin-Arab community. Results of research suggesting the greater incidence of intrafamilial conflict and dysfunction in polygamous families were confirmed, in part, by our empirical findings: Conflict ratings

among siblings were significantly higher in polygamous than in monogamous families.

Furthermore, the results of our study show that these social problems within the family carried over to the formal education system: The children of polygamous families had lower levels of education achievement and generally greater difficulty in the social adjustment process within the schools. The children of those polygamous families may, thus, be seen as doubly disadvantaged educationally: They experienced both the general education disadvantage of their Bedouin-Arab community and the additional social difficulties resulting from the polygamy.

A clear goal of clinical intervention must be to increase teachers' awareness of the emotional and social needs of children from polygamous families. The problems of these children may be viewed as symptoms of family dysfunction; this perspective should lead to collaboration between school systems and community social services. In terms of clinical intervention, a mental health practitioner needs to be able to read the family's ecological map (Hartman, 1978)—that is, the two subfamilies within the main family and the family's place within the extended family-tribe and community. Recognizing the father's considerable power over both subfamily systems, we suggest that such change would be most successfully implemented with his active participation. The paternal grandfather, because he is often respected by the husband, both wives, and their respective families, would, in some cases, also be valuable in the intervention as a mediator or advocate.

Intervention requires the ability to think systematically and to carry out intervention accordingly (Al-Krenawi, Maoz, & Reicher, 1994). The mental health practitioner must carefully select target systems for intervention. Women, it should be emphasized, are socially disposed to be loyal to their husbands. A wife who divulges family problems to anyone outside the immediate family is considered disloyal and could incur the anger of her husband, her extended-family members, or both (Mass & Al-Krenawi, 1994). Thus, it would be difficult to frame intervention in the immediate context of meeting the wife's needs.

A far more appropriate target system is the children. The social status and future economic well-being of both parents are strongly dependent upon the size of the family, because family honor is closely associated with the number of sons and their future successes. Thus, a mental health intervention could feasibly be framed in the context of attending to the children's emotional, instrumental, and relational needs (Al-Krenawi et al., 1997).

The motivation to address these aspects may be high if a clinician can help the family to appreciate their relationship to the children's social functioning at school. Moreover, in focusing on the children's difficulties, other familial systemic issues may also be addressed. This focus allows consideration of differential allocation of economic and social support between the two subfamilies.

Improvements in subfamily, half-sibling, and co-wife relations may be con-

vincingly portrayed as interdependent. The co-wives could be encouraged to perceive each other as partners, rather than as opponents; half-sibling relations could improve in conjunction with relations between their mothers.

Finally, the present results have suggested the importance of increasing the awareness of teachers and other social health-care workers that children from polygamous families are less likely to do as well as their peers from monogamous families—a result, in part, of more general intrafamilial problems. One may assume that children from polygamous families are also more likely to drop out of school earlier and to be more at risk of succumbing to the other social problems such as drugs. The solutions, as suggested, should focus on the recognition of polygamy as a particular risk factor, along with the expectation that, over time, higher levels of paternal education may well lead to smaller families and more attention to the emotional and social needs of the children.

Two important caveats must be added here. First, the research was limited to polygamous families with only two wives; nothing directly can be said about whether the situation would differ in larger family units—that is, whether the important differences are between one and more than one wife; whether there is some other dichotomy; or whether there is a linearity, so that numbers of wives and the incidence of social problems would vary directly.

Second, the study was based only on a sample of urban Bedouin Arabs. Some 60% of the community in the Negev continues to live outside settled towns and villages; any sort of education for children is often difficult to obtain because facilities are not available in these areas. In such cases, the children must walk, ride a donkey, use public transportation, or resort to a combination of these to reach schools in central locations that are often very far away. The problems—and responses—in such contexts are of an entirely different magnitude from those facing children living in villages.

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This is Exhibit "F" referred to in the affidavit of Susan Sticker sworn before me at Northport, NY this 9th day of JULY, 20 10

LORIANN BELFIORE
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Qualified in Suffolk County
Commission Expires: Dec. 21, 2013

Loriann Belliore
A Commissioner for taking Affidavits
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Psychosocial and Familial Functioning of Children From Polygynous and Monogamous Families

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ABSTRACT. A sample of 352 Bedouin Arab children—174 from monogamous and 178 from polygynous families—participated in this study. The authors used self-reported standardized measures to assess the participants' level of self-esteem, mental health, social functioning, father-child relationships, mother-child relationships, and family functioning. The findings revealed that children from polygynous families reported more mental health and social difficulties as well as poorer school achievement and poorer relationships with their fathers than did their counterparts from monogamous families. In addition, the children from polygynous families rated their families' functioning and economic status as poorer than did those of monogamous families. Thus, the authors suggest that a polygynous family structure negatively affects the family's socioeconomic status and interpersonal relationships and impairs the children's psychological and social functioning. The authors discuss implications for practice and policy.

Keywords: Bedouin, children, mental health, monogamy, polygyny

POLYGAMOUS MARRIAGE IS COMMON in the Middle East, Africa, Asia, and Oceania, but it also occurs in Europe, North America, and other Western countries (Broude, 1994). There are three types of polygamy: polygyny, in which one man is married to two or more wives; polyandry, in which one woman is married to two or more husbands; and polygynandry, a group marriage in which two or more wives are simultaneously married to two or more husbands (Sinha & Bharat, 1985; Valsiner, 1989). Of the three forms, the first is the most common. It is also the focus of the present study.

Sociologists view polygyny as a reproductive strategy by which men increase the number of their offspring but decrease the level of investment in each child (White, 1988). Polygyny is often found in social systems in which human

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resources are particularly important in contrast with material resources such as land or other forms of private assets ("Polygyny," 1986). In Western societies, where there is less need for working hands, the polygynous family may experience economic difficulty and be weak rather than strong (Al-Krenawi, Graham, & Izzeldin, 2001).

In the present study, we attempted to conduct an in-depth examination of the emotional and behavioral functioning of Bedouin Arab children of first wives from polygynous families as compared with their counterparts from monogamous families. In contrast with previous studies, we used a large representative sample drawn from all of the Bedouin Arab schools in the Negev and examined a wide range of possible consequences that include not only mental health but also self-esteem, peer relationships, relationships with parents, and grades in school. Moreover, we took into account the possible impact of the family's economic status and examined the possible mediating role of perceived family functioning.

Mental Health Impact of Polygyny on Wives and Children

Studies conducted in different countries have shown that polygyny can lead to cowife jealousy, competition, and unequal distribution of household and emotional resources (Adams & Mburugu, 1994; Kilbride & Kilbride, 1990; Wittrup, 1990). It also creates acrimony between cowives and among children of the different wives (Al-Krenawi, 1998; Ware, 1979). Studies have also shown that polygyny is associated with increased mental illness among women and children. Chaleby (1987) found a disproportionate number of wives in polygynous marriages, particularly senior (earlier) wives, among psychiatric outpatients in Kuwait. A similar phenomenon has been observed in a number of other societies, including Nigeria (Makanjoula, 1987), India (Haggi, 1974), and elsewhere in the Muslim world (Al-Issa, 1990; Al-Krenawi, 1998; Chaleby, 1985).

Several studies carried out in different countries in the Middle East and Africa show that children of polygynous families tend to suffer more from emotional, behavioral, and physical problems, as well as a more negative self-concept, lower school achievement, and greater difficulties in social adjustment than do children from monogamous marriages (Al-Krenawi, Graham, & Slonim-Nevo, 2002; Al-Krenawi & Lightman, 2000; Cherian, 1990; Eapen, Al-Gazali, Bin-Othman, & Abou-Saleh, 1998; Owuamanam, 1984). Researchers have also found that adolescents in general are less accepting of polygyny than adults (D'Hondt & Vandewiele, 1980; Dorjahn, 1988), objecting mainly to the economic difficulties and discommunication among children of different wives.

However, no systematic empirical studies using large and representative samples have been carried out to date. Therefore, the present study examined the impact of polygynous marriage on the psychological, social, and familial functioning of Bedouin Arab children in Israel.

Bedouin Arabs

Bedouin Arabs, although part of the Arab people, are a distinct linguistic, political, and geographic entity. Like other traditional Arab societies, the Bedouin Arab society is a high context society in which the collective takes precedence over the individual and continuity and stability are valued over change (Al-Krenawi & Graham, 1997; Hall, 1976). Its social structure is patriarchal and gender segregated. Men lead the household and dominate the politics and economy. Women's physical and intellectual capacities are generally devalued (Al-Sadawi, 1985; Chaleby, 1985; El-Islam, 1983).

In the past few decades, globalization and other factors have instigated a rapid and unremitting process of modernization in the Bedouin Arab society. This process reflects major economic, political, social, and value changes, which have undermined traditional Bedouin culture and pose a threat to the Bedouin both as individuals and a group. Inevitably, the process has created a myriad of unfamiliar challenges for which the Bedouin Arab society lacks the experience and skills with which to cope. Thus, even as the changes wrought by modernization penetrate all aspects of Bedouin life, a great part of the society strives to preserve the familiar and maintain its religion and culture.

One of the major changes is the progressive sedentarization of the Bedouin, who traditionally were a nomadic people. In the present day, virtually all of the 160,000 Bedouin Arabs in Israel who inhabit the Negev—Israel's southern region—live in villages. Around 56% of these villages are officially recognized, and their inhabitants receive government services; whereas 44% are unrecognized villages, and their inhabitants receive few such services (Al-Krenawi, 1999). The transition to permanent villages of both types has led to the loss of traditional employment (e.g., herding, agriculture), leaving the Bedouin devoid of the skills required for obtaining adequate employment in modern society (Al-Krenawi, 2001).

Polygyny Among Bedouin Arabs of the Negev

Even though the progressive sedentarization has made polygyny less advantageous from an economic standpoint and less sustainable than in the past, polygyny is still prevalent and largely accepted in Bedouin Arab society in the Negev, even among the young and educated. Precise figures are unavailable, but the estimates are approximately 20% of all Bedouin Arab marriages in the Negev are polygynous.

Persistence of polygyny among the Bedouin Arabs of the Negev is the result of a variety of interrelated reasons. The major one is perhaps that the Bedouin Arab society places a premium on large family units, especially those with many sons, regardless of whether they are at the level of the nuclear family, the *hamula* (clan), or the tribe. Because historically the Bedouin Arabs were a warrior people, the larger the tribe,

the more powerful it was, and the higher its status (Marks, 1974). On the level of the individual and nuclear family unit, a person's status, economic security, and potential for personal development are still based on the family to which one belongs. Socially and psychologically, polygyny and the large families it produces are associated with power and prestige (Al-Krenawi, 1998; Kersel, 1976).

Another source of polygyny in Arab society is the institution of exchange marriage. In such marriages, still common in the Bedouin society, two men marry each other's sisters. If one of the men takes a second wife, the other is likely to be pressured by his family of origin to follow suit to maintain symmetry between the two family structures.

A third motive for polygyny is the perceived inadequacies of a man's first wife. Bedouin society considers it acceptable and even appropriate for a man to take a second wife if the first is infertile, has not borne him sons, is physically or mentally ill, or does not fulfill his sexual needs (Al-Krenawi, Graham, & Al-Krenawi, 1997). Under these circumstances, polygyny protects the wife from the highly adverse consequences of divorce in Bedouin Arab society.

Polygynous wives may live together (a) in the same house, (b) in the same building on different floors, or (c) separately, with each wife living with her children in a different home. A senior wife is defined as any married woman who is followed by another wife in the marriage. A junior wife is the most recent wife joining a marriage (Chaleby, 1985). Many societies assign senior wives higher status, with power over the other wives, exclusive privileges, and stronger influence with the husband (Broude, 1994).

However, in the Bedouin Arab society, the first wife tends to have lower status than subsequent wives (Al-Krenawi et al., 1997) because the first marriage, which usually occurs at a very young age, is generally the product of parental matchmaking in which parents choose partners for political and economic reasons (Al-Haj, 1987; El-Islam & Abu-Dagga, 1992). However, second, third, and fourth marriages are often products of choice, and the man may sometimes choose his wife for love. As a result, subsequent wives often receive preference in the distribution of the man's economic resources, social support, and attention (Al-Krenawi, 1998; Al-Krenawi et al., 1997).

Al-Krenawi (2001) found that first wives in polygynous marriages in the Bedouin Arab society in the Negev suffered from emotional problems such as low self-esteem and loneliness more than did monogamous wives. Al-Krenawi and colleagues also found that Bedouin Arab children of polygynous marriages suffered from a variety of behavioral problems, psychosocial difficulties, and low school achievement (Al-Krenawi & Graham, 2001; Al-Krenawi et al., 1997; Al-Krenawi & Lightman, 2000).

Although these studies provide a preliminary picture of the many difficulties faced by wives and children in polygynous Bedouin Arab families, they are limited in size and scope. They examined relatively small samples, drawn from single schools or villages, and used a limited number of outcome measures. They did not

take into account the possible intervening role of other variables, especially the family's economic status and functioning, which have been associated with children's adjustment in a wide variety of areas. Studies consistently show that living in poverty has negative implications for children's physical and mental health, academic achievement and behavior, and that it affects interpersonal relationships in the family (Montgomery & Carter, 1993; Newacheck, 1993; Starfield, 1991; Weinger, 1998). Findings indicate that children living in poverty tend to show more cases of depression, social avoidance, low self-esteem, and serious behavior disorders than do children in wealthier families (Leadebeater & Bishop, 1994). Long-term poverty is associated with an increased risk of dropping out of school, juvenile delinquency, and crime (Korenman, Miller, & Sjaastad, 1995).

In addition, the impact of family dysfunction has been found to be similar to that of poverty, with negative implications for children's adjustment and mental health manifested in the severity of their depression and history of psychiatric illness (Boettcher, Billick, & Burgert, 2001; Bradley, 2001; McDermott, McKelvey, Roberts, & Davies, 2002). Findings show that children from dysfunctional families tend to do poorly in school, have higher dropout rates, and are at higher risk for drug abuse and criminal behavior (Beiser, Hou, Hyman, & Tousignant, 2002; Offord et al., 1992).

The literature suggests that children are also affected by the deleterious effects of poverty on family functioning. Economic stress makes it more difficult for parents to provide their children with emotional support, meet their other various needs, and function as nurturing authoritative figures (Kaplan, 1986; Sampson & Laub, 1994). Children are affected not only by economic deprivation but also by the psychological burdens of poverty. For example, job insecurity and the stress that frequently accompanies a bad economic situation is systematically related to family dysfunction (Larson, Wilson, & Beley, 1994). Beiser et al. (2002) suggested that the negative impact of poverty on children's mental health may be mediated by family function. Hence, in the present study, family functioning and economic status are independent variables.

Method

Sample

In the first stage of sampling, we collected the names of 1,000 children of first wives of polygynous families and 1,000 children of monogamous families. All children were in seventh through ninth grade. The lists of names came from 11 junior high schools in the Negev located in both recognized and unrecognized villages. (Unrecognized villages are established without official approval by the Israeli authorities and are thus deprived of government services, including water and electricity.) In the second stage, we deleted names of siblings from the list to ensure that only one child would represent each family. Of those remaining, SPSS software randomly selected 380 children to participate. Of these randomly

chosen participants, 2 children refused to fill out the questionnaires, and 9 were absent on the day we administered the questionnaires. In all, 17 questionnaires were disqualified: 8 because they were completed by children of second wives, 6 because they had been filled out by children of a dead parent, 2 because they were blank, and 1 because it was filled out incorrectly.

As a result, the final sample consisted of 352 students, 174 from monogamous families and 178 from polygynous families, divided by gender and family status. The boys' group comprised 47% of the polygynous group and 50% of the monogamous group. The girls' group comprised 53% of the polygynous group and 50% of the monogamous group. Ages ranged from 13 to 15 years ($M = 14.05$ years, $SD = 0.83$ years). All of the fathers in the polygynous families had two wives.

Data Collection

We consulted with the Bedouin Arab school teachers about the quality of the Arabic versions of the research instruments. Before we administered the questionnaires, we obtained information from the Arabic language teachers in the participating schools on each child's ability to read and write, ensuring they could complete the questionnaire. The children received self-report questionnaires in Arabic, containing closed questions and standard research instruments. Male and female Arab university students were present to answer questions as the participants filled in the questionnaires. The Arab university students provided assistance to those participants who had difficulties understanding some of the questions. (Male students helped male participants, and female students helped female participants.) We obtained informed consent for the study from the Ministry of Education and parents of the students in the sample.

Research Instruments

Demographic variables. We queried the following sociodemographic variables: gender, age, father's education, mother's education, father's employment status, mother's employment status, family type (polygynous or monogamous), number of siblings, family's economic status, and type of housing (e.g., apartment, tent, shack).

Academic achievement. We assessed the children's academic achievements by the mean of their grades in four subjects—English, Arabic, Hebrew, and arithmetic—over three semesters. We obtained these grades from their school files.

Social functioning. We measured social functioning with a standard instrument assessing relationships with peers (Hudson, 1982). The instrument consists of 25 questions and is suitable for respondents aged 12 years and older. Hudson found high internal reliability (Cronbach's $\alpha = .94$) and a low standard measure error (4.44). The measure also has high validity and is able to discriminate between clinical and

normal populations. (The scale ranges 0–100, with a cutting point of 35.) Slonim-Nevo and Shraga (2000) also found the internal reliability of the measure to be high in an Israeli study of Jewish adolescents (Cronbach's $\alpha = .93$, $N = 146$). For the purpose of the present study, we translated the instrument into Arabic using the method of back-translation. Its internal reliability among the Bedouin Arab adolescents in the present sample was high (Cronbach's $\alpha = .89$, $N = 256$).

Psychological functioning. To assess self-esteem, we used the Rosenberg (1979) Self-Esteem Scale, which consists of 10 items ranging from 1 to 4, with higher scores indicating higher self-esteem. We translated it into Arabic for this study. It has high internal reliability (Gutman's measurement of reconstruction = 0.92) and high test–retest reliability ($r = .85$). It also has high concurrent and construct validity. A study of Israeli Jewish adolescents (Slonim-Nevo & Shraga, 2000) indicated reasonable internal reliability (Cronbach's $\alpha = .75$, $N = 145$) in this group. The internal reliability among the Bedouin Arab adolescents in the present study was moderate (Cronbach's $\alpha = .62$, $N = 317$).

To assess mental health, we used the Brief Symptom Inventory (BSI), a screening instrument that measures psychiatric symptomatology (Canetti, Shalev, & Kaplan-De-Nour, 1994; Derogatis & Spencer, 1982). A shortened version of the better known Hopkins Symptom Checklist (H-SCL-90) consists of 53 self-report items that elicit perceptions of symptoms during the month prior to its completion. It includes nine dimensions of mental functioning: somatization, interpersonal sensitivity, obsession compulsion, depression, anxiety, hostility, panic (phobic anxiety), paranoid ideation, and psychosis. In addition, the scale provides a *general severity index (GSI)*, a *positive symptom distress index (PSDI)*, and a *positive symptoms total (PST)*. All scales range from 0 to 4, with higher scores indicating more mental health problems.

For the purposes of this study, we translated the BSI into Arabic using the method of back-translation. The internal reliability of the nine subscales is adequate (Cronbach's $\alpha = .71-.81$), and the test–retest reliability is satisfactory ($r = .60-.90$). The measure also has a moderate level of validity measured by comparison with the Minnesota MultiPhasic Personality Inventory (MMPI) test. Norms and scores among youth populations in Israel and the United States are available for comparison (Al-Krenawi, Slonim-Nevo, Maymon & Al-Krenawi, 2001). The internal reliability of the present measure and its subscales were measured in a Jewish research population (Slonim-Nevo & Shraga, 2000) with reasonable results (Cronbach's $\alpha = .62-.96$).

The level of reliability of the subscales among the Bedouin Arab adolescents in this study follows: Somatization ($\alpha = .73$, $N = 309$), Obsession compulsion ($\alpha = .73$, $N = 302$), Interpersonal sensitivity ($\alpha = .59$, $N = 326$), Depression ($\alpha = .74$, $N = 320$), Anxiety ($\alpha = .48$, $N = 320$), Hostility ($\alpha = .69$, $N = 312$), Panic (phobic anxiety; $\alpha = .65$, $N = 315$), Paranoid ideation ($\alpha = .64$, $N = 331$), Psychotism ($\alpha = .67$, $N = 323$), and all the items together ($\alpha = .94$, $N = 185$).

Father-child relationships. We assessed father-child relationships using the Hudson (1982) scale of father-child relationships as perceived by the respondent. The scale contains 25 items and is suitable for respondents aged 12 years and older. Scores range from 0 to 100, with higher scores indicating a more problematic relationship with the father. The scale has high reliability (Cronbach's $\alpha = .92$), low standard error (4.56), and high test-retest reliability ($r = .96$). We translated the scale into Arabic using the method of back-translation. The internal reliability among the Bedouin Arab adolescents in the present study was reasonable (Cronbach's $\alpha = .71$, $N = 242$).

Mother-child relationships. Hudson's (1982) standard scale measured mother-child relationships as perceived by the respondent. The scale contains 25 items and is applicable to participants aged 12 years and older. The scale ranges from 0 to 100, with higher scores indicating a more problematic relationship with the mother. The scale has a high level of reliability (Cronbach's $\alpha = .90$), a low level of standard error (4.56), and a high level of test-retest reliability ($r = .96$). We also translated this scale into Arabic using the method of back-translation. The level of internal reliability among Bedouin Arab adolescents in this study was high (Cronbach's $\alpha = .84$, $N = 265$).

Family functioning. The McMaster Family Assessment Device, developed by Epstein, Baldwin, and Bishop (1983), was designed to assess respondents' perceptions of relationships in their family and the different ways in which family members communicate with one another. In the present study, we used the 12 items that assess the family's general functioning as perceived by the respondent. The scale ranged from 1 to 4, with higher scores indicating more perceived problems in the family. Ridenour, Daley, and Reich (1999) found that these 12 items provide a satisfactory picture of the family's general functioning and that there is no need to use all 60 questions. Cutting points discriminating between clinical and normal families in American populations are available, though none exist for Israeli families. The scale has satisfactory reliability (Cronbach's $\alpha = .72-.92$), good test-retest reliability ($r = .66$), and a high level of validity, as indicated by comparing the scale's scores with other measures of the same matters (Epstein et al.; Miller, Epstein, Bishop, & Keitner, 1985).

The scale was used in studies of Israeli Jewish and Arab adolescents (Al-Krenawi, Slonim-Nevo, et al., 2001). The different subscales translated into Arabic have exhibited satisfactory levels of internal consistency (Cronbach's $\alpha = .72-.92$; for General functioning, $\alpha = .82$). The reliability of the subscale was relatively low (Cronbach's $\alpha = .50$, $N = 302$).

Results

Sociodemographic Characteristics

Table 1 presents the sociodemographic characteristics of the participants in both groups. The data showed that the parents of the children from the

TABLE 1. Sociodemographic Characteristics

Variable	Whole sample			Polygynous			Monogamous		
	%	M	SD	%	M	SD	%	M	SD
Gender									
Male	49			47			50		
Female	51			53			50		
Age		14.05	0.85		14.17	0.83		13.93	0.80
Father's years of education**		7.62	4.15		6.99	4.20		8.19	4.04
Mother's years of education**		5.11	4.40		4.20	4.20		6.05	4.40
Fathers' employment**									
Unemployed	48			56			39		
Employed	52			44			61		
Retired	8			10			5		
Mothers' employment									
Unemployed	88			90			85		
Employed	12			10			15		
Type of family									
Polygynous	51								
Monogamous	49								
Number of siblings (excluding the participant)***					13.37	5.26		8.30	2.77
Economic situation***									
Good	53			45			62		
Nearly good	40			44			35		
Not good or not good at all	7			11			3		

Note. Whole sample N = 352; polygynous n = 178; monogamous n = 174.
*p < .05. **p < .01. ***p < .001.

monogamous families tend to be more educated than those from the polygynous families, though in both groups their levels of education (especially the mothers') were low. Similarly, although there was a high rate of unemployment in both groups (especially among the mothers), the parents in the polygynous families were more likely to be out of work than were those in the monogamous families.

In addition, although both groups have large families, children in polygynous families had approximately five more siblings than did children in monogamous families ($M = 13.37$, $SD = 5.26$; $M = 8.30$, $SD = 2.77$, respectively). The perceived economic situation of the polygynous family was also worse, with 62% of the children of monogamous families—as opposed to only 45% of those of polygynous families—reporting that their family's economic situation was good.

Psychological, Social, Educational, and Family Functioning

Table 2 shows the psychological, social, educational, and family functioning of both groups. The children of first wives from polygynous families showed significantly more psychological distress than did those from monogamous families. With only one exception (anxiety), children from polygynous families scored significantly higher on all the BSI subscales, reporting more somatization, obsession compulsion, depression, interpersonal sensitivity, hostility, phobic anxiety, paranoid ideation, and psychotism. Their *GSI*, *PSDI*, and *PST* were all higher.

In addition, the children from polygynous families reported significantly more problems in peer relationships than did those from monogamous families. They also reported significantly poorer relationships with their fathers and poorer overall perceived family functioning. Last, children from polygynous families showed lower school achievement than did those from monogamous families.

In conclusion, the findings showed that in every dimension—psychological, social, educational, and familial—children from polygynous families report more difficulties than do their peers from monogamous families.

Mediating Factors: Explaining Difficulties of Children from Polygynous Families

Perceived family functioning. The previously presented data show that children of first wives from polygynous families function more poorly than do children from monogamous families. In an attempt to further explain these findings, we hypothesized that family functioning would mediate the impact of family structure on the children's psychosocial functioning (see Figure 1). We followed Baron and Kenny's (1986) four-step model for establishing the mediating effect of family functioning (Kenny, Kashy, & Bolger, 1998).

As noted, the first step was to establish a significant effect of the independent variable (family structure) on the outcome variables. We used regression analysis

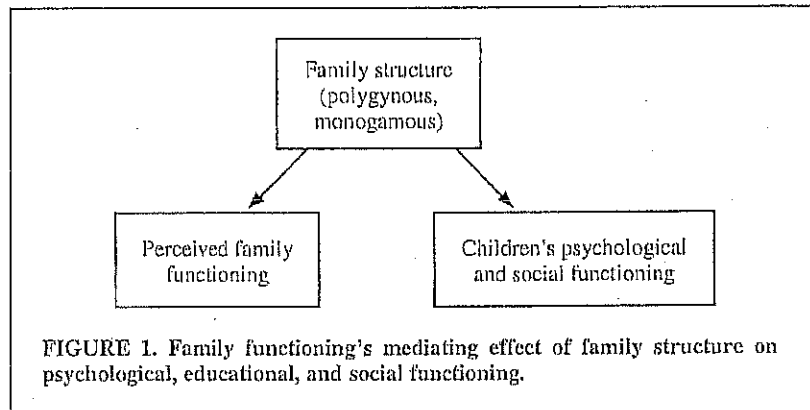
TABLE 2. Psychological, Social, Educational, and Family Functioning

Mental health variable	Whole sample		Polygynous		Monogamous	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Somatization**	0.85	0.68	0.96	0.70	0.75	0.65
Obsession compulsion***	1.11	0.76	1.24	0.82	0.98	0.68
Depression**	1.00	0.75	1.11	0.82	0.90	0.65
Interpersonal sensitivity***	1.02	0.81	1.16	0.85	0.89	0.75
Anxiety	1.34	0.68	1.37	0.71	1.31	0.66
Hostility**	1.08	0.79	1.21	0.84	0.95	0.72
Phobic anxiety (panic)***	1.03	0.79	1.18	0.81	0.86	0.73
Paranoid ideation*	1.10	0.76	1.18	0.78	1.02	0.73
Psychotism***	1.05	0.78	1.19	0.83	0.91	0.71
General severity index***	1.07	0.59	1.17	0.61	0.96	0.56
Positive symptoms total*	29.70	11.74	30.99	11.60	28.37	11.76
Positive symptom distress index***	1.81	0.53	1.89	0.56	1.72	0.49
Self-esteem	2.98	0.41	2.95	0.42	3.01	0.39
Relationships with friends**	26.30	16.23	28.54	16.44	24.05	15.75
Relationships with the father***	32.03	11.81	34.12	12.08	29.95	11.20
Relationships with the mother	20.10	14.15	21.23	13.36	18.99	14.83
Family functioning**	2.16	0.43	2.23	0.42	2.10	0.42
Academic achievement*	72	18.79	68	19.73	76	17.40

Note. Based on a *t* test analysis, two tails for differences between means. Whole sample *N* = 352; polygynous *n* = 178, monogamous *n* = 174.
p* < .05. *p* < .01. ****p* < .001.

to establish this effect and performed the analysis two times. The first time, we assessed the effect of family structure while controlling for different sociodemographic variables (full model). The second time, we performed a stepwise regression to achieve the best predictive model (best model). As Table 3 shows, family structure was a significant predictor of peer relations, six of nine BSI dimensions, and the *GSI*. Thus, we concluded that children of first wives from polygynous families have poorer peer relationships and poorer mental health functioning when compared with children from monogamous families.

The second step was to examine the effect of the independent variable on the mediating variable. Again, we performed best and full regression analyses. Table 3 presents the effects of family structure on general family functioning, controlling for sociodemographic variables. As expected, family structure was



a significant predictor. The results indicated that children of first wives from polygynous families perceive more difficulties in their family functioning than do children from monogamous families.

The third step was to show the effect of the mediating variable (family functioning) on the outcome variables (social and mental health functioning) while controlling for the independent variable (family structure). Table 4 presents the full and best regression models showing the effect of general family functioning while controlling for family structure and sociodemographic variables. Family functioning was a major predictor of self-esteem, peer relations, academic achievement, and all of the BSI dimensions, including the *GSI*.

The fourth step was to show that the effect of the independent variable (family structure) on the outcome variables declines when the mediating variable (family functioning) is controlled for. As stated, the findings presented in Table 3 show that family structure had a significant effect on children's psychological and social functioning, but the findings presented in Table 4 show that this effect was no longer significant when the impact of family functioning was controlled. Thus, we concluded that family functioning mediates the impact of family structure on the psychological and social functioning of the children.

Economic status. The regression models presented in Tables 3 and 4 also point to the significant role that the family's economic status played in the children's mental health and social functioning. Economic status had a significant effect on the children's self-esteem, all of the BSI dimensions except for anxiety, their peer relationships, and their perception of their family's functioning beyond the effects of their family structure and other sociodemographic variables. Thus, our results suggested that living in a polygynous family negatively affects the socioeconomic status of the family and its familial relationships. Furthermore, these two factors negatively affect the children's psychological and social functioning.

TABLE 3. Impact of the Sociodemographic Factors on Children's Social, Psychological, Educational, and Family Functioning for Independent Variables in the Linear Regression Model (β s)

Variable	Age	Gender	SES	Father's education	Family structure	R ² full model	R ² best model
Family functioning	-.03	-.02	-.18***	-.01	-.12*	.054 ^a	.040 ^a
Self-esteem	-.06	.12 ⁺	.23***	.08	.01	.087***	.077 ^h
Peers' relations	.01	-.15*	-.11 ^b	-.06	-.11 ^a	.062***	.047 ^c
Academic achievement	-.08	.35***	.03	-.02	.09	.132***	.112 ^f
Somatization	-.05	-.06	-.17***	-.03	-.12*	.063***	.040 ^a
Obsessive compulsive	-.01	-.02	-.17***	-.08	-.12*	.068***	.061 ^a
Interpersonal sensitivity	-.05	.05	-.18***	-.10	-.12*	.072***	.060 ^a
Depression	.01	.10	-.21***	-.09	-.08	.079***	.055 ^c
Anxiety	.01	.16*	-.16 ^b	.01	-.01	.048 ^b	.047 ^b
Hostility	.05	-.11	-.17**	-.04	-.12*	.077***	.060 ^h
Phobic anxiety	-.08	.04	-.10	-.01	-.19***	.057**	.042 ^d
Paranoid ideation	.04	.08	-.15*	-.09	-.05	.045*	.027 ^c
Psychotism	-.05	-.05	-.20***	-.04	-.13*	.076***	.059 ^a
General severity index	-.02	.01	-.21***	-.06	-.13*	.077***	.066 ^a

Note. SES = socioeconomic status; age = age of respondents. Gender: male = 0, female = 1; family structure: polygamy = 0, monogamy = 1. Economic status ranges from 1 (very bad) to 6 (very good); self-esteem ranges from 1 (low) to 4 (high). Peers' relation is 0-100, with higher values indicating more difficulties; brief symptom inventory scales is 0-4, with higher values indicating more difficulties; academic achievement is 0-100, with higher values indicating higher academic achievement.

^aeconomic status, family structure, ^beconomic status, gender, ^ceconomic status, ^dfamily structure, ^efamily structure, gender, ^fgender, ^ggender, ^hgender.

* $p < .05$. ** $p < .01$. *** $p < .005$. **** $p < .001$.

TABLE 4. Results of Linear Regression With Family Functioning as a Mediating Factor for Independent Variables (Bs)

Variable	Family functioning	Age	Gender	SES	Father's education	Family structure	R ² full model	R ² best model
Self-esteem	-.33 ^{****}	-.06	.11 [*]	.17 ^{***}	.08	-.04	.191 ^{****}	.181 ^b
Peer relations	.31 ^{****}	.01	-.14 [*]	-.05	-.06	-.07	.154 ^{****}	.139 ^d
Academic achievement	-.14 [*]	-.08	.35 ^{****}	.00	-.02	.08	.149 ^{***}	.134 ^c
Somatization	.30 ^{****}	-.04	-.06	-.12 [*]	-.03	-.09	.146 ^{****}	.133 ^a
Obsessive compulsive	.32 ^{****}	.00	-.01	-.12 [*]	-.08	-.09	.165 ^{****}	.149 ^a
Interpersonal sensitivity	.23 ^{****}	-.04	.05	-.14 [*]	-.10	-.09	.123 ^{****}	.101 ^a
Depression	.27 ^{****}	.01	.11	-.17 ^{***}	-.09	-.04	.147 ^{****}	.126 ^a
Anxiety	.19 ^{***}	.02	.16 ^{**}	-.13 [*]	.00	.02	.083 ^{***}	.082 ^b
Hostility	.16 ^{**}	.06	-.11	-.14 [*]	-.04	-.10	.102 ^{****}	.075 ^d
Phobic anxiety	.23 ^{****}	-.08	.05	-.06	-.01	-.16 [*]	.105 ^{****}	.096 ^c
Paranoid ideation	.21 ^{****}	.04	.08	-.11	-.08	-.03	.087 ^{****}	.071 ^a
Psychotism	.24 ^{****}	-.05	-.04	-.16 ^{**}	-.04	-.10	.129 ^{****}	.113 ^a
General severity index	.31 ^{****}	-.02	.02	-.15 ^{**}	-.06	-.09	.165 ^{****}	.153 ^a

Note. SES = socioeconomic status; age = age of respondents. For general family functioning, higher values indicate more difficulties. Economic status ranges from 1 (very bad) to 6 (very good); self-esteem ranges from 1 (low) to 4 (high). Peers' relation is 0-100, with higher values indicating more difficulties; brief symptom inventory scales is 0-4, with higher values indicating more difficulties; academic achievement is 0-100, with higher values indicating higher academic achievement.

^ageneral family functioning, economic status; ^bgeneral family functioning, gender, economic status; ^cgeneral family functioning, family structure; ^dgeneral family functioning, gender.

* $p < .05$. ** $p < .005$. *** $p < .001$. **** $p < .001$.

Discussion

The findings of the study show that children of first wives from polygynous families have more mental health problems and educational and social difficulties than do their peers from monogamous families. They report higher levels of psychiatric symptomatology, including somatization, obsession compulsion, depression, interpersonal sensitivity, hostility, phobic anxiety, paranoid ideation, and psychosis than do children from monogamous families. They also report more problems in relating to their peers, show poorer school achievement, and depict poorer relations with their fathers (but not with their mothers).

The children's poorer relationships with their fathers may be understood in the context of what usually happens in the polygynous father's relationship with his first wife and her children. The senior wives in polygynous Bedouin Arab families are often less important and valued than the subsequent wives, and the status of the children follows suit. The father's emotional and economic resources are unevenly channeled to the second wife and her children. Consequently, it is not surprising that children of senior wives do not take kindly to their fathers and rely on their mothers for love and caring (Adams & Mburugu, 1994; Al-Krenawi, 1998; Kilbride & Kilbride, 1990; Ware, 1979; Wittруп, 1990).

The findings indicate that perceived family functioning has direct and indirect effects on the adjustment of children from polygynous families, and they have an autonomous impact on all the outcome variables.

In both polygynous and monogamous families, better family functioning was associated with children's higher self-esteem and better peer relations and mental health. In addition, an analysis using Baron and Kenny's (1986) four-step procedure for establishing mediation (Hoyle & Kenny, 1999; Kenny et al., 1998) suggests that family structure (polygynous or monogamous) influences children's mental health and peer relationships through family functioning. In other words, the findings show that family functioning mediates the influence of family structure on children's psychosocial behavior. These findings imply that polygyny is not in itself detrimental to children's adjustment and that in well-functioning polygynous families, the children's adjustment is not impaired.

In addition, economic status was a significant predictor of both family functioning and children's mental health. This finding is consistent with previous findings that link family functioning and economic status (Beiser et al., 2002; Offord et al., 1992). It is also consistent with studies showing that children from families with low economic status tend to have behavioral and psychological difficulties (Korenman et al., 1995). In the present study, too, the implication is that children's adjustment will not be impaired in polygynous families whose economic status is good.

However, the findings also show that the family functioning and economic status of polygynous families as perceived by the children were worse than those of monogamous families. These findings support the view that although polygyny

may have once been a useful and viable family form, it is no longer so in the present reality in which children are consumers of resources rather than producers.

The polygynous family structure places a great deal of emotional and financial pressure on the family members. At the same time, our findings show that the polygynous men (and their wives) are less educated and more prone to being unemployed than are their monogamous counterparts. In other words, we suggest that prior deficiencies in education and functioning predispose men to choose polygynous marriages, thus compounding the economic and emotional strains inherent in the polygynous family structure.

The findings suggest a bleak future for children from polygynous families. Most of them suffer from psychological, social, family, educational, and economic problems. In fact, most of the numerous school dropouts in the Bedouin Arab community—close to 40% of Bedouin Arab children who leave school before high school (Cohen-Navot, 2002)—may come from polygynous families. The many difficulties these children suffer may lead to a sense of hopelessness and cause them to seek other activities (e.g. pleasure seeking; Slonim-Nevo, Auslander, & Ozawa, 1995). Furthermore, in adolescence and adulthood, these difficulties may put them at risk for delinquency, drug abuse, and unemployment. In other words, polygyny may be seen as a detrimental model for marriage not only for the children of polygynous families but also for Bedouin Arab and Israeli societies as a whole.

Implications

The potentially detrimental repercussions of polygyny for the individual and society make it vital to provide assistance to polygynous children and their families to reduce their distress, help them cope, and improve their future possibilities. It is important to provide assistance at the individual, familial, and community levels.

On the individual level, mental health practitioners should view children living in polygynous families as children at risk. They should be aware of the potential for psychological, educational, and social difficulties and offer individual counseling and support. Counseling should focus on raising the children's self-esteem and discussing their personal and family problems. The following instrumental assistance is also necessary: tutoring and enrichment to help them with school; financial help in the form of school materials, food security, and health care; and other ways to ameliorate their poverty.

On the family level, the children of different wives should be taught how to resolve conflicts among themselves, build coalitions instead of competing, and support each other. Wives and children can learn how to negotiate for attention and resources. All members of the family can learn how to compromise and build a successful small community through the equitable distribution of financial resources, pooling and sharing scarce resources, and augmenting those resources (e.g., through economic initiatives).

Because Bedouin Arab families tend to be wary of involving outsiders in their family affairs and Bedouin Arab men are wary of ceding their authority to others, including professionals, thought must be given to how best to approach these families. Approaching them through the problems of the wives is likely to be complicated (Abu-Baker & Dwairy, 2003). It may be better to draw on Bedouin Arab men's concern for their children and approach them through their children's problems. In addition, because current methods of family therapy are based on Western nuclear families, methods for treating polygynous families must be developed and evaluated.

On the community level, we recommend three types of action. First, a concerted effort should be made to raise the Bedouin Arab community's awareness of the many detrimental implications of polygyny in the present for the family as a whole and children in particular. Awareness can be raised through the local media, religious leaders, professional conferences, and the schools. Second, community programs should be developed to help children of polygynous marriages deal with the difficulties of such family structures. Such programs may include support groups, after-school classes, sports, hobbies, cultural activities, and field trips outside the neighborhood. The local schools may be the appropriate arena for these activities, but other venues may be sought as well. Third, policy makers and political leaders in Israel must find ways to improve the economic condition of the entire Bedouin Arab community. This means investing in education, both formal and informal, and creating job opportunities, which are currently scarce in the Bedouin Arab community. Without substantial economic and educational development, a change in the condition of Bedouin Arab children and families, whether polygynous or otherwise, cannot be expected.

Conclusion

Further research is recommended to verify and extend these findings. The study has the advantage of assessing a large and representative sample, and its findings are consistent with other findings on children of polygynous marriages. Nonetheless, some of the scales yielded only low-to-moderate consistency, making it advisable for future researchers to use instruments better tuned to the Bedouin Arab population. In addition, we urge that further qualitative studies be conducted on family relations and functioning in polygynous families to expand knowledge and provide a base for the development of interventions that would best meet these families' needs.

AUTHOR NOTES

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The Psychosocial Profile of Bedouin Arab Women Living in Polygamous and Monogamous Marriages

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This is Exhibit "G" referred to in the
affidavit of Susan Stickerens
sworn before me at Northport NY
this 9th day of JULY, 20 10

LORIANN BELFIORE
Notary Public, State of New York
No. 01BE6215043
Qualified in Suffolk County
Commission Expires: Dec. 21, 2013

Loriann Belfiore
A Commissioner for taking Affidavits
~~for Suffolk County~~ for NY state

ABSTRACT

This study examining the psychosocial profile of Bedouin Arab Women living in polygamous and monogamous marriages found that women in polygamous marriages reported lower levels of self-esteem and higher levels of somatization, depression, anxiety, hostility, paranoid ideation, more problematic family functioning, less marital satisfaction, and more problematic mother-child relationships than women in monogamous marriages. The sample consisted of 315 women, 156 from polygamous and 159 from monogamous families. The respondents completed the Self-Esteem scale (SE), The Brief Symptom Inventory (BSI), The McMaster Family Assessment Device (FAD), The Enrich questionnaire and the Index of Parental Attitudes. The polygamous family structure and the economic difficulties widespread, apparently constitutes a substantial contribution to the polygamous household's impaired family functioning.

Polygamy, defined here as the marriage of one man to multiple wives (Kottak, 1978, as cited in Low, 1988, p. 189), is one of the most common forms of marriage among the world's cultures (Al-Krenawi, 2001a). In the United States, polygamy is practiced by certain Mormon fundamentalist groups although the practice was outlawed in 1890 by the mainstream Mormon Church of Latter Day Saints (Altman & Ginat, 1996). Today, polygamy is most common in Africa, Asia, the Middle East, and Oceania, but also occurs in Europe and North America (Altman & Ginat, 1996; Broude, 1994; Gibbs & Campbell, 1999).

Polygamy has economic advantages in rural and pre-industrial societies, where a large pool of wives and their male offspring provides a source of cheap and sure labor for the family (Barry & Yoder, 2002). As such, polygamous marriages also enhance the personal and political power of the man and his extended family (Abu-Lughod, 1985;

Betzig, 1988; Kilbride & Kilbride, 1990). Women married to wealthy polygamists may also reap certain benefits, including economic security and social protection (Borgerhoff-Mulder, 1992; Kressel, 1996). In some situations, there may be advantages of sharing household chores, economic activities, and childrearing with the other wives (Ware, 1979). However, both men and women in polygamous marriages speak of the disadvantages of polygamy. Women speak of the emotional and economic deprivations stemming from the husband's sharing of these resources (Al-Krenawi, 1998). Men and women both speak of the adverse atmosphere created by jealousy, envy, and hatred among the co-wives and their children (Al-Krenawi, 1998; Borgerhoff-Mulder, 1992; Kilbride & Kilbride, 1990; Ware, 1979).

The few studies examining polygamy from women's perspective note a close association between polygamous

marriage, stress, and mental illness among women (Makanjuola, 1987; Al-Issa, 1990; Al-Krenawi, 1998). Findings show a greater prevalence of mental disorders among women in polygamous marriages than among those in monogamous marriages (Leighton et al., 1963) and a higher proportion of women in polygamous marriages, relative to their number in the general population, in outpatient (Chaleby, 1987) and inpatient (Chaleby, 1985) psychiatric care. Among psychiatric patients, polygamous marriage is associated with depressive disorders, state anxiety (Ghubash, Hamdi, & Bebbington, 1992), somatization (El-Islam, 1975), low self-esteem (Al-Krenawi, 2001a), and other psychopathological disorders (Aghanwa, Dare, & Ogunniyi, 1999). Moreover, Al-Krenawi and Lev-Wiesel (2002) found higher levels of wife abuse in polygamous marriages in comparison to monogamous marriages.

Polygamy Among Bedouin Arabs of the Negev

Bedouin Arabs, although part of the Arab people, are a distinct linguistic, political, and geographic entity. Like other traditional Arab societies, Bedouin Arab society is "high context," in which the collective is emphasized over the individual and continuity and stability are valued over change (Hall, 1976; Al-Krenawi, Graham, & Al-Krenawi, 1997). Its social structure is patriarchal and gender segregated. Women's physical and intellectual capacities are generally devalued (El-Islam, 1975; Al-Sadawi, 1985).

Since the 1948 establishment of the State of Israel, people of Arab descent have experienced oppression, trauma, social exclusion, and related socioeconomic and political problems (Al-Krenawi & Graham, 2004; Al-Krenawi, Graham, & Schwait, 2004). The Bedouin Arabs of the Negev were foremost in this process of social change. The psychosocial and economic consequences have been severe; people lost their homes, livelihoods, and political power; families were displaced and separated and communities were destroyed (Sa'di, 2003).

Over the course of a few generations, the Bedouin Arab social structure has been altered from traditional to modern, its settlement patterns from nomadic to sedentary, and its economic base from agricultural labor to hired labor and dependence upon the Israeli industrial economy. The society's criteria for status and prestige have changed, fundamentally, from acquisition of land in an agrarian society to possession of skills and education necessary for success in industrial capitalism (Al-Haj, 2003).

Polygamy has long been a core social institution in Bedouin Arab society, as in other Arab and Muslim societies. The Koran permits up to four wives, and long-standing religious and cultural traditions view polygamy as a sound means of organizing and controlling male sexual needs within a socially sanctioned framework that requires

the man to act responsibly and offers women a measure of protection and security (Al-Krenawi, 1999; Hassouneh-Phillips, 2001). In addition, polygamy is viewed as an efficient means of ensuring family continuity when the wife is infertile or bears only girls (Al-Krenawi, 1999).

Recent changes in Bedouin Arab society have placed pressures on the institution of polygamy. One of the major changes is the steady sedentarization of the Bedouin Arabs, who were traditionally a nomadic people. In Israel today, virtually all of the 150,000 Bedouin Arabs inhabiting the Negev, Israel's southern region, live in villages; some 56% live in officially recognized villages where they receive government services, and 44% are in unrecognized villages, where they have no social services and lack an infrastructure (Al-Krenawi, 2001b). The transition of both family types to permanent, recognized villages has led to the loss of traditional employment (e.g., herding, agriculture), and has left the Bedouin Arabs without the education and skills required to find adequate employment in modern society (Al-Krenawi, 2001b). Unemployment rates among the Bedouin Arabs in Israel are estimated at over 55%; approximately 30% of the men and over 80% of the women are unemployed (Al-Krenawi, 2001b). The Bedouin Arab community is considered as the most socially disadvantaged population and weakened population in Israel today (Statistical Yearbook of the Negev Bedouin, 2004). Together, the sedentarization in quasi-urban communities and the ensuing unemployment have made polygamy less advantageous both economically and socially.

Another source of pressure is the gradual, but steady increase in higher education among Bedouin Arab men and women, along with increased respect for and power wielded by educated members of the community. Although polygamous marriages are still entered into by well-educated Bedouin Arab men and a well-educated Bedouin Arab woman can still be compelled into a polygamous marriage, there are indications that education reduces polygamy. Al-Krenawi and Lightman (2000) found that monogamous Bedouin Arabs of both genders were better educated than their polygamous counterparts. Along similar lines, studies conducted in Bangladesh (Shaikh, Aziz, & Chowdhury, 1987) and among the Yoruba of western Nigeria (Ahmed, 1986) revealed that educated parents were less likely to marry their daughters to men who were already married.

These developments notwithstanding, polygamy still persists among the Bedouin Arabs of the Negev. Precise figures are unavailable, but estimates indicate that approximately 20% of all Bedouin Arab marriages in the Negev are polygamous (Al-Krenawi & Lightman, 2000). In addition to the deep-seated cultural and religious attitudes noted above, two causes of its persistence are the desire for large families including many male offspring and "exchange marriages." Bedouin Arab society values large family units and many sons. Because the Bedouin Arabs

were historically a warrior people, the larger the tribe, the more powerful it was and the higher was its status (Marks, 1974). On the individual and family levels, a person's status, economic security, and potential for personal development continue to be based on family affiliation. Hence, socially and psychologically, polygamy and the large families it enables is still associated with power and prestige (Al-Krenawi, 1998; Kressel, 1996). Another source of polygamy in Arab society is the institution of "exchange marriage." In such a marriage, which is fairly common in Bedouin Arab society, two men marry one another's sisters. Should one of the men take a second wife, the other will probably be pressured by his family of origin to follow suit, in order to maintain symmetry between the two family structures. In summary, despite the economic difficulties Bedouin Arab society in the Negev face as a result of the transition processes, remaining cultural and religious canons preserve the practice of polygamy.

Senior Wives

In polygamous marriages the wife's status varies with her marital order. In many societies, it is the senior wife who enjoys the highest status, with power over the other wives, exclusive privileges, and strong influence with the husband (Broude, 1994). In contrast, a senior wife in Arab (and Bedouin) society often has a lower status than subsequent wives (Al-Krenawi et al., 1997) because the first marriage, which is usually entered into at a very young age, is often the product of parental match-making, in which partners are chosen for "political" and economic reasons (Al-Haj, 1987). Second, third, and fourth marriages are, on the other hand, usually products of choice in which the man may select his wife. As a result, subsequent wives sometimes receive preference in the distribution of the man's economic resources, social support, and attention (Al-Krenawi et al., 1997; Al-Krenawi, 1998).

Al-Krenawi (2001a), found that senior wives in polygamous marriages in Bedouin Arab society in the Negev suffered more from low self-esteem, loneliness, and other emotional problems than monogamous wives. A study conducted in rural Cameroon (Gwanfogbe, Schumm, Smith, & Furrow, 1997) revealed that junior wives are more satisfied with their marriages than are senior wives. Chaleby (1987) points out that in Kuwait's psychiatric service there are more senior wives under treatment than junior wives. In another study, Chaleby (1985) observes that senior wives relate their psychiatric symptoms to their husbands' subsequent marriages.

Much of the literature dealing with family therapy is based on the concept of the nuclear family—one father, one mother, and their children. This study seeks to extend the body of knowledge by learning about different family types and structures and their dynamics in order to develop appropriate family theories and interventions

that can also be employed with other family structures and societies.

Most studies of polygamy approach the subject as a cultural phenomenon and/or focus on the male's perspective (Borgerhoff-Mulder, 1992). The present study joins the small but growing body of research that examines polygamy from the woman's perspective.

Although preceding studies provide a preliminary picture of the many difficulties faced by senior wives in polygamous families, further study is warranted. Previous studies have, for the most part, examined relatively small samples drawn from single locales and used limited measures of outcome. The present study's primary objective is to examine the psychosocial status of Bedouin Arab women who are senior wives in polygamous marriages, using a large sample from a wide area and varied measures of outcome. The study also considers the intervening role the family's economic status and functioning may adopt. More specifically, it examines the psychological functioning, family functioning, marital satisfaction, and mother-child relationship among senior wives in polygamous marriages in Israel. Based on the findings presented above, it is anticipated that the wives from polygamous families will display more psychological problems and difficulties in their family functioning, marital satisfaction, and mother-child relationships in contrast to their counterparts from monogamous families.

Method

Sample

The sample consisted of 315 women: 156 from polygamous families and 159 from monogamous families. The names of the participants were obtained from their children, who were interviewed for a different study in various schools in the Negev. After receiving permission from the Ministry of Education, the children were sampled randomly by SPSS software. Mothers who were contacted by phone in order to obtain parental consent for the children's study received information about the present research. Of those contacted in this way, 319 consented to participate and scheduled a meeting with the interviewers. All of the women from polygamous families were "senior"—that is, their husband's first wives. Their husbands all had only two wives—information derived from the previous research. Four women refused to complete the questionnaire while meeting with the interviewers, hence they were not included in the sample. On the average, 13 years had elapsed between the husband's two marriages. In the sample as a whole, the women's ages ranged from 28 to 58 ($M = 40.76$, $SD = 6.12$) and their education ranged from 0 to 16 years of schooling ($M = 2.74$, $SD = 3.93$). Only 4% of the women worked outside of the home.

Data Collection

Bedouin Arab students met with the mothers, personally interviewed the women in their homes and, if necessary, read the questions aloud and recorded the participant's answers to the questionnaire (with illiterate subjects). For cultural reasons, all of the interviews in this study were conducted by female, Bedouin Arab students. The women were informed that data collection would be conducted anonymously; that is, their names would not be published.

Research Instruments

Demographic variables. All of the women answered questions regarding their age and their husband's age, age at marriage, number of years of schooling, employment status, and economic status as well as the number of male and female children. The polygamous wives were also asked how many other wives their husbands had, how many children he had with these wives, and how many years they had been married before he took a second wife.

Psychological functioning. Two instruments were used to evaluate (a) self-esteem and (b) mental health.

The Rosenberg (1979) Self-esteem scale (SE) consists of 10 items which range from 1–4; higher scores indicate higher self-esteem. The scale has high internal reliability (Gutman's measurement of reconstruction = 0.92) and high test-retest reliability ($r = 0.85$). It also has both high concurrent validity and high construct validity. A study on Jewish Israeli adolescents using this scale (Slonim-Nevo & Shraga, 2000) showed reasonable internal reliability (Cronbach's $\alpha = 0.75$, $N = 145$) in this group. The Arabic version of the scale, used in a study of Bedouin Arab women in Israel (Al-Krenawi & Graham, 2004) has satisfactory internal consistency (Cronbach's $\alpha = 0.79$, $N = 204$). Its internal reliability among Bedouin Arab women in the current study is moderate (Cronbach's $\alpha = 0.70$, $n = 299$).

Mental health was measured with the Brief Symptom Inventory (BSI), which is a screening instrument that measures psychiatric symptomatology (Derogatis & Spencer, 1982; Canetti, Shalev, & Kaplan-De-Nour, 1994). Also, a shortened version of the better-known Hopkins Symptom Checklist (H-SCL-90) was used. It consists of 53 self-report items that query symptoms during the last month. The inventory has nine dimensions of mental functioning: somatization, interpersonal sensitivity, obsession-compulsion, depression, anxiety, hostility, panic (phobic anxiety), paranoid ideation, and psychotism. In addition, it enables calculating a General Severity Index (GSI), a Positive Symptom Distress Index (PSDI), and a Positive Symptoms Total (PST). All scales range from 0–4, with higher scores indicating more problems in mental health.

The BSI was translated into Arabic using the method of back-translation. The internal reliability of the nine subscales is adequate (Cronbach's $\alpha = 0.71$ – 0.81) and the test-retest reliability is satisfactory ($r = 0.60$ – 0.90). The

measure also has a moderate level of validity, which was measured by comparison to an MMPI test. The internal reliability of the Arabic version of the scale as a whole and of its nine subscales, as measured among a sample of Bedouin Arab women in Israel (Al-Krenawi & Graham, 2004), was reasonable (Cronbach's $\alpha = 0.63$ – 0.86).

The reliability levels of the psychological functioning measures of the Bedouin Arab women in the current study were as follows: somatization: $\alpha = 0.87$, $n = 296$; obsession-compulsion: $\alpha = 0.86$, $n = 296$; interpersonal sensitivity: $\alpha = 0.72$, $n = 300$; depression: $\alpha = 0.74$, $n = 177$; anxiety: $\alpha = 0.86$, $n = 296$; hostility: $\alpha = 0.76$, $n = 299$; panic (phobic anxiety): $\alpha = 0.78$, $n = 291$; paranoid ideation: $\alpha = 0.71$, $n = 305$; psychotism: $\alpha = 0.77$, $n = 303$; all the dimensions together: $\alpha = 0.97$, $n = 131$.

Family functioning. The McMaster Family Assessment Device (FAD), developed by Epstein, Baldwin, and Bishop (1983), is designed to assess respondents' perceptions of relationships in their family and the different ways in which family members communicate with one another. The scale has moderate internal reliability (Cronbach's $\alpha = 0.36$ – 0.82) among Jewish adolescents in Israel (Slonim-Nevo & Shraga, 1997). The current study employed only the 12-item General Functioning subscale. A recent study has shown that the use of seven subscales of the FAD was methodologically incorrect (Ridenour et al., 1999). The study used exploratory and confirmatory factor analyses that indicate that "the FAD subscales overlap substantially and do not assess unique dimensions of family functioning." The research suggests that the best use of the FAD is to employ the General Functioning subscale as a summary score (Ridenour et al., 1999, p. 497). In accordance with these findings, we used only the General Functioning subscale (12 out of the 60 items of FAD). The subscale of General Functioning, translated and back-translated into Arabic, yielded a high level of internal consistency in a study (Al-Krenawi & Graham, 2004) among Bedouin Arab women in Israel (Cronbach's $\alpha = 0.85$, $n = 189$). The reliability of the General Functioning subscale in the current study was satisfactory (Cronbach's $\alpha = 0.80$, $n = 280$).

Marital satisfaction. The Enrich questionnaire (Olson, Fournier, & Druckman, 1982) measures the degree of satisfaction with and adjustment to marital life. In its original version, it contained 105 items and the adapted scale had 95. The questionnaire consists of 8 parts, with 10 items each. The items were drawn from a comprehensive review of the literature on problems and interpersonal conflicts in marriage (Fournier & Olson, 1986, as cited in Lavee, McCubbin, & Olson, 1987). Respondents answered the questions on a scale of 1 to 5, with higher values indicating less satisfaction with marriage. The questionnaire has high reliability (Cronbach's $\alpha = 0.88$ – 0.89 ; Fournier, Olson, & Druckman, 1983, as cited in Lavee et al., 1987).

TABLE 1. Sociodemographic Characteristics

	WHOLE SAMPLE (N = 315)			POLYGAMOUS (N = 156)			MONOGAMOUS (N = 159)		
	M	SD	%	M	SD	%	M	SD	%
Wife's age***	40.76	6.12		42.05	6.18		39.52	5.82	
Husband's age *	43.99	7.69		45.3	7.38		42.76	7.79	
Wife's age at marriage	18.1	2.38		18.05	2.43		18.14	2.35	
Husband's age at marriage*	21.4	4.38		20.79	3.68		21.97	4.89	
Wives' years of schooling**	2.74	3.93		1.99	3.37		3.48	4.29	
Husband's years of schooling**	5.88	4.43		5.07	4.23		6.66	4.48	
Number of boys	4.52	1.97		4.39	2.12		4.65	1.82	
Number of girls**	4.35	2.07		4.73	2.16		3.97	1.9	
Wives' employment status									
Unemployed			96			97			94
Employed			4			3			6
Husbands' employment status									
Unemployed			47			50			44
Employed in his profession			42			38			46
Employed not in his profession			5			3			6
Retired			6			9			4
Economic status *									
Good			21			17			25
Nearly good			63			63			63
Not good/not good at all			16			20			12
Number of children from husband's other wives				5.23	3.69				
Years of marriage before husband took a second wife				13.79	6.49				

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The current study employs the shortened version of the questionnaire, which contains only 10 items. The internal reliability of the shortened version used in the current study is very high (Cronbach's alpha = 0.94, $n = 291$). A study that used the instrument on various Arab populations in Israel (Lev-Wiesel & Al-Krenawi, 1999) found satisfactory internal reliability (Cronbach's alpha = 0.89, $n = 291$).

Mother-child relationships. The Index of Parental Attitudes (Hudson, 1982) is a self-report measure for parents that examines the extent, severity, and implications of problems in the parent-child relationship. It contains 25 items rated on a scale ranging from 1-7, with higher values indicating more problematic relationships. The scale has a section point that distinguishes between respondents with clinical problems in the parent-child relationship and those without such problems. The scale's internal reliability is very high (Cronbach's alpha = 0.97), as are its construct validity and discriminative validity (Hudson, 1982). Its internal reliability in the current study is satisfactory (Cronbach's alpha = 0.81, $n = 283$).

It should be noted that all of the research instruments were translated into Arabic by a professional translator, fluent in both Arabic and English, and then they were independently translated back into English to ensure the accuracy of translation.

Statistical analysis. The data were analyzed using the SPSS computer program. Univariate and bivariate analyses were initially performed to depict the sample and observe relations between the variables. Multiple regressions were

then performed to examine the research hypotheses. In the first stage all of the variables were inserted (full model) and in the second stage a hierarchy regression was conducted in order to determine the best predictive model (best model).

Findings

Sociodemographic characteristics

Table 1 presents the sociodemographic characteristics of the study participants.

As can be seen, the polygamous couples differed significantly from the monogamous ones in age, in husbands' age at marriage, education, number of girls in the family and economic status. The mean ages of both spouses in the polygamous marriages are higher than those of their monogamous counterparts: the husbands' by 2.54 years, the wives' by 2.53 years. The polygamous husbands' mean age at marriage is lower (by 1.18 years) than that of the monogamous husbands, though there is no significant difference in the mean ages of the wives. Both the women and the men in polygamous marriages have significantly less schooling than their counterparts in monogamous marriages, with a mean difference of 1.49 years for the women and 1.59 for the men; the mean level of education of the entire sample is very low. In addition, the mothers in polygamous families have more girls than those in monogamous families, though there is no significant difference in the number of boys they have. Finally, the economic status of polygamous families is worse than that of monogamous families ($p < 0.05$).

TABLE 2. Psychological and Familial Functioning and Marital Satisfaction

	RELIABILITY		WHOLE SAMPLE (N = 315)		POLYGAMOUS (N = 156)		MONOGAMOUS (N = 159)		t-TEST VALUE t
	CHRONBACH'S ALPHA	n	M	SD	M	SD	M	SD	
Mental health									
Somatization*	0.87	296	1.15	0.93	1.25	0.92	1.05	0.92	1.93
Obsession-compulsion	0.86	296	0.90	0.92	0.95	0.87	0.87	0.93	0.77
Depression*	0.74	177	0.71	0.80	0.79	0.80	0.63	0.79	1.73
Interpersonal sensitivity	0.72	300	1.07	0.87	1.12	0.84	1.02	0.90	1.00
Anxiety*	0.86	296	1.13	0.98	1.25	1.01	1.02	0.93	2.10
Hostility*	0.76	299	0.87	0.81	0.95	0.80	0.78	0.82	1.85
Phobic anxiety (panic)	0.78	291	0.79	0.86	0.83	0.87	0.74	0.85	0.99
Paranoid ideation*	0.71	305	1.02	0.85	1.12	0.88	0.93	0.82	2.02
Psychotism	0.77	303	0.72	0.83	0.77	0.82	0.68	0.83	0.99
GSI*	0.97	131	0.94	0.74	1.01	0.72	0.86	0.75	1.79
PST*			23.42	13.86	25.15	13.35	21.71	14.18	2.22
PSDI			1.89	0.58	1.95	0.55	1.82	0.59	2.05
Self-esteem***	0.7	299	1.74	0.42	3.17	0.43	3.43	0.40	-3.60
Family functioning***	0.8	280	2.15	0.57	2.35	0.58	1.96	0.49	6.28
Marital satisfaction***	0.94	291	2.01	1.12	2.60	1.22	1.61	0.73	8.55
Parent-child relationship	0.81	283	1.92	6.45	2.32	6.80	1.52	6.06	1.09

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Psychological Functioning, Family Functioning, and Marital Satisfaction

Table 2 presents the psychological functioning, family functioning, and marital satisfaction of the women in the two groups.

As can be seen in Table 2, the findings show that the wives in polygamous marriages suffered from more psychological difficulties than those in monogamous marriages. They reported significantly higher levels of somatization, depression, anxiety, hostility, and paranoid ideation. The general severity (GSI) of their symptoms was greater, as was the total number of symptoms they endorsed (PST and PSDI, $p < 0.05$).

In addition, the wives in polygamous marriages reported lower self-esteem, less marital satisfaction, and more problematic family functioning than the wives in monogamous marriages.

Linear Regression Analysis

A series of linear regressions (for continuous variables) were performed to ascertain the contributions of family structure (polygamy/ monogamy) and sociodemographic variables (woman's age, education, and family's economic status) to the women's psychological health and family functioning. The analyses were conducted twice, once using the full model, in which all the independent variables were entered into the regression and the contribution (beta) of each variable to the prediction of the outcome variables was examined, and again using the best model (only the most predictive variables), which enables ascertaining the contributions made to the variance in each of the dependent variables assessed. Two sets of these regressions were carried out: one set with family functioning as

an independent variable and one set with family functioning as an outcome variable.

Table 3, in which family functioning serves as an independent variable, shows the full model and best model predictions of the women's self-esteem and psychological symptoms.

As can be seen in Table 3, of all the independent variables, family functioning made the most significant contributions to the outcome variables. Family functioning contributed significantly to every one of the outcome variables, either alone or in conjunction with other variables. It is the only variable that contributed significantly to the women's self-esteem, explaining 21% of its variance: the poorer the family's functioning, the lower the woman's self-esteem. Family functioning is also the only variable that contributed significantly to the explanation of the variance in six out of the nine mental health dimensions that were examined. It explained 13% to 23% of the variance in these dimensions. Women who reported more problematic family functioning also reported higher interpersonal sensitivity, depression, hostility, phobic anxiety, paranoid ideation, and psychotism.

In addition, family functioning and family structure together explained 18% of the variance in obsession-compulsion and 24% of the variance in the GSI. Women in polygamous marriages, and whose family functioning was poor, tended to show higher levels of obsession-compulsion and more general psychological distress. Together with age, family functioning explained 22% of the variance in anxiety. The older the woman and the poorer her family functioning, the higher the level of anxiety she reported. Finally, family functioning and economic status together explain 22% of the variance in somatization: the worse

TABLE 3. Regression Analysis Betas With Family Functioning As an Independent Variable

	INDEPENDENT VARIABLES						R ² FULL MODEL	R ² BEST MODEL
	FAMILY FUNCTIONING	AGE	ECONOMIC STATUS	WOMAN'S EDUCATION	POLYGAMY/MONOGAMY			
Self-esteem	-.45****	-.03	.02	.00	-.06	.212****	.209 ^a	
Somatization	.39****	.14*	-.16***	-.07	.09	.227****	.219 ^d	
Obsession-compulsion	.45****	.07	-.01	.05	.11*	.191****	.185 ^b	
Interpersonal sensitivity	.39****	.03	-.05	.06	.08	.161****	.149 ^a	
Depression	.44****	.11*	-.04	.05	.07	.209****	.192 ^a	
Anxiety	.46****	.13*	-.05	.03	.06	.229****	.223 ^c	
Hostility	.37****	-.02	-.02	.10	.00	.151****	.140 ^a	
Phobic anxiety (panic)	.39****	.10	.03	.04	.08	.144****	.128 ^a	
Paranoid ideation	.43****	.09	-.02	.07	.04	.199****	.187 ^a	
Psychotism	.49****	.08	-.03	.06	.12*	.238****	.229 ^a	
GSI	.49****	.10*	-.06	.05	.08	.260****	.242 ^b	

* $p < 0.05$, *** $p < 0.005$, **** $p < 0.001$

Note. Family functioning: Higher value indicates more difficulties; Age = participant's age; Polygamy/monogamy: 0 = polygamy, 1 = monogamy; Economic status: 1 = not good at all to 6 = very good.

^a general family functioning; ^b family functioning, polygamy/monogamy; ^c family functioning, age; ^d family functioning, economic status.

TABLE 4. Regression Analysis Betas With Family Functioning As a Dependent Variable

	INDEPENDENT VARIABLES				R ² FULL MODEL	R ² BEST MODEL
	AGE	ECONOMIC STATUS	WOMAN'S EDUCATION	POLYGAMY/MONOGAMY		
Self-esteem	-.02	-.12*	.03	-.19***	.054***	.053 ^b
Somatization	.14*	-.28****	-.04	-.03	.107****	.105 ^c
Obsession-compulsion	.07	-.15*	.08	-.02	.032*	.021 ^a
Interpersonal sensitivity	.04	-.17	.09	-.04	.038*	.028 ^a
Depression	.12*	-.18****	.08	-.06	.055****	.047 ^c
Anxiety	.14	-.19	.06	-.08	.065****	.058 ^c
Hostility	-.01	-.13*	.13*	-.11	.042*	.019 ^a
Phobic anxiety (panic)	.11	-.09	.07	-.03	.024	—
Paranoid ideation	.10	-.15**	.10	-.09	.050***	.025 ^a
Psychotism	.09	-.18****	.10	-.03	.048**	.032 ^b
GSI	.11	-.21****	.09	.09	.067****	.057 ^c
Family functioning	.02	-.31****	.07	-.30****	.211****	.206 ^b

Note. Family functioning: Higher value indicates more difficulties; Age = participant's age; Polygamy/monogamy: 0 = polygamy, 1 = monogamy;

Economic status: 1 = not good at all to 6 = very good.

^a economic status; ^b economic status, polygamy/monogamy; ^c economic status, age.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.005$, **** $p < 0.001$

their family functioning and economic status, the higher the levels of somatization.

Table 4, in which family functioning is an outcome variable, shows the full model and best model predictions of the women's self-esteem, psychological symptoms and family functioning.

As can be seen, 21% of the variance in family functioning is explained by the combination of economic status and (mainly) family structure. The family functioning of polygamous families is poorer than that of monogamous ones, and the worse the family's economic status, the poorer its family functioning is likely to be. However, family structure contributes significantly to the variance in only one other outcome, self-esteem, where it explains only around 5% of the variance. Therefore economic status becomes a significant predictor of eight other variables in addition to family functioning: self-esteem,

somatization, obsession-compulsion, depression, hostility, paranoid ideation, psychotism, and the GSI.

Discussion

The findings indicate that women in polygamous marriages suffer greater mental distress and have less satisfying family lives than women in monogamous marriages. Consistent with previous findings cited earlier in the article, the findings show that the women in polygamous marriages (all senior wives) reported lower self-esteem and greater psychological distress than their monogamous counterparts. In addition to a higher level of general psychiatric symptomatology, they reported more symptoms of somatization, depression, anxiety, hostility, and paranoid ideation. The findings also show that the women in polygamous marriages reported more problems in family

functioning and less marital satisfaction than their counterparts in monogamous marriages. None of these findings are surprising given the inferior status of senior wives in Bedouin Arab polygamous families and the likelihood that they lost out in the competition for the husband's emotional and financial resources that characterizes most polygamous households (Al-Krenawi et al., 1997; Al-Krenawi, 1998; Borgerhoff-Mulder, 1992; Kilbride & Kilbride, 1990; Ware, 1979). These factors can readily explain the impaired self-esteem, mental distress, and reduced marital satisfaction of wives in polygamous marriages, as well as at least a part of the poorer functioning of their families.

The present study joins the small but growing body of research that examines polygamy from the woman's perspective.

The only outcome variable which the wives in polygamous marriages did not fare significantly worse in than those in monogamous marriages was their relationship with their children. This is probably because most of the polygamous wives in the current sample have their own independent households, where they live on their own with their children. The issue of children as a source of strength for polygamous mothers requires further research.

A major concern of this study was to try to determine the extent to which the mental health of polygamous wives was affected by the polygamous family structure as such or by other variables. To this end, we carried out two separate regressions, the first in which family functioning was an independent variable, the second in which it was an outcome variable. The findings of the first showed that while family structure, along with age and economic situation, contributed to the woman's mental status, the major determinant was her family's functioning. Theoretically, one might conclude from this that where the polygamous family functions well, the wife will not suffer the usual emotional consequences.

The problem, as shown by the findings of the second regression, is that the polygamous family structure, along with the economic difficulties that accompany it in our sample, apparently constitutes a substantial contribution to the impairment of the family functioning of the polygamous household. Findings show, namely, that the polygamous family is less likely to function well, both by virtue of its structure and because of the economic hardships that usually accompany it, than the monogamous family. In this context, we should note that although in many societies where polygamy is practiced having multiple wives is

a privilege of the wealthy, which raises the man's prestige in the community (Abu-Lughod, 1985), the polygamous households in our sample were poorer than the monogamous ones. A lower percentage of wives in polygamous marriages reported a good economic situation than those in monogamous marriages and a higher percentage reported that their economic situation is not good and/or not good at all. These findings support the cultural/religious values regarding polygamous marriages among the Bedouin Arab in the Negev. We may conclude that economic factors contribute indirectly to the frequency of polygamous marriages among Bedouin Arabs.

The finding that polygamous family structure contributed to reduced self-esteem and augmented mental distress in our sample is consistent with Chaleby's (1985) finding that Kuwaiti senior wives in polygamous marriages who are undergoing inpatient psychiatric care attribute their psychiatric symptoms to their husbands' remarriages. Several explanations can be offered for the deleterious impact of the polygamous family structure on the mothers in our sample, who were all senior wives. One is anchored in the tendency in Bedouin Arab society to place the onus of meeting the man's needs on the woman and to blame her for whatever dissatisfaction her husband feels in the marriage (Cwikel, Lev-Wiesel, & Al-Krenawi, 2003; Shalhoub-Kevorkian, 1999). It is thus not unlikely that first wives whose husbands marry again will feel that they have failed in their wifely duties to meet their husband's rightful needs, whether for pleasure, sons, or anything else. In addition, senior wives are also likely to feel that their husbands shunted them aside for a preferred partner, as well as losing out in the competition for the husband's emotional and financial resources that characterizes polygamous families (Al-Krenawi et al., 1997; Al-Krenawi, 1998), and suffering both emotional and instrumental deprivation as a result. Another possible contributing factor to their mental distress may be their relationship with their husband's second wife. Studies have shown that polygamy can lead to co-wife jealousy and competition (Adams & Mburugu, 1994; Kilbride & Kilbride, 1990; Wittrup, 1990).

The importance of family functioning and economic status to women's mental health has been found in previous studies of both polygamous and monogamous families. Viinamaeki, Kontula, Niskanen, and Koskela (1995) found that financial difficulties, among other factors, were strongly associated with the presence of mental disorders. In addition, Taylor (1998) has shown the direct and cumulative impact of economic hardship on the mental health of mothers, their parenting behaviors, and child outcomes.

The finding that polygamous family structure impairs family functioning and economic status is logical. Economic resources are diluted when they must be shared between more than one wife and numerous children. Usually, polygamous marriages produce more children than do monogamous marriages, thereby increasing the

financial pressures on the family (Elbedour, Onwuegbuzie, Caridine, & Abu-Saad, 2002). Family functioning may well be undermined by the co-wife jealousy and competition that characterizes polygamous households and by the father's attention being divided between his two families.

The sociodemographic profile of the polygamous family differed from that of the monogamous family. Not only was the polygamous family poorer, but both the women and the men were less educated than their monogamous counterparts. These findings are consistent with previous findings among the Bedouins in Israel (Al-Krenawi & Lightman, 2000), which similarly showed that polygamous couples were less educated and polygamous households less well off economically than their monogamous counterparts (Elbedour et al., 2002). They are also consistent with findings cited earlier in this article showing that educated girls were less likely to enter polygamous families than uneducated ones.

Implications for Practice

The results of this study clearly indicate that women in polygamous families suffer from various and interrelated difficulties: psychological distress, marital dissatisfaction, relatively poor family functioning, and economic hardship. We suggest that professional help should be offered on the personal, family, and community levels.

On the personal level, social workers, psychologists, and health practitioners should view a senior wife in a polygamous family as a person at risk. They should be aware of the potential for psychological and somatic difficulties, and offer individual counseling and support. Such help should be given not only to women who already manifest symptoms, but also to women who do not complain as a matter of prevention. Counseling could focus on raising the woman's self-esteem, providing her with strategies aimed at managing feelings of jealousy, helping her gain a sense of independence, and discussing issues of marital relations and family life. Yet, counseling alone is not sufficient.

On the family level, social practitioners and family therapists should develop methods of intervention with polygamous families, possibly adapting concepts and techniques taken from both systemic family therapy and group work. Wives in such families could be taught how to resolve conflicts between themselves, how to support one another, and how to build coalitions with one another so that their shared husband cannot play one off against the other. All of the members in the family could learn how to negotiate for attention and resources, how to compromise, how to manage the situation with acceptance and not with hate, and how to build a successful small community. The fathers in such families should be made aware—perhaps by participation in conferences and seminars—of the detrimental impact of the unequal distribution of their economic and emotional resources and be encouraged to treat his wives and their children more equally.

For the well-being of both the women and the family as a whole, it is crucial that concrete assistance be provided where it is needed, in the form of financial benefits, school materials for the children, food aid, and health care. Both men and women in polygamous families should be helped in acquiring marketable skills and in entering the job market; this would give both a modicum of financial independence and some sense of empowerment.

On the personal level, social workers, psychologists, and health practitioners should view a senior wife in a polygamous family as a person at risk.

Finally, work should be conducted on the community level. First, the Bedouin Arab people should be made more aware of the negative effects of polygamy, including economic hardship and psychological and social difficulties for the women and children living in such families (Al-Krenawi, 1998, 2001a). Awareness could be raised via the local media, religious leaders, and the formal and informal education systems.

Second, programs should be developed to assist wives and children of polygamous families in coping with the difficulties found in this family structure. For example, a support group for senior wives could be offered in the primary health care centers in the Bedouin Arab villages and towns. Because these health clinics serve as social clubs for Bedouin Arab women, they spend most of their free time visiting the local clinics (Al-Krenawi, 1996). Children in polygamous families can be supported through the school system and via after-school programs.

However, it is important to suit the intervention to the unique characteristics of Bedouin Arab society. It should relate with great sensitivity to the role of the man as the head of the family with all of its different meanings. The practitioner may also try to obtain the assistance of the *hamula*—the extended family—which has an immense influence on the individual. There should be an attempt to read the ecological map of the Bedouin Arab society and, with severe cases, turn to local leaders as cultural mediators.

In short, polygamy is part of the reality of the Bedouin Arab community. It should not be ignored and ways should be sought to help polygamous families cope with their difficulties. Further research is recommended to examine the psychosocial impact of polygamy on the polygamous husband.

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This is Exhibit "A" referred to in the
affidavit of Susan Stickevers
sworn before me at Northport NY
this 9th day of JULY, 2010

Loriann Belfiore
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