



# Emirati Women's Experiences of Consanguineous Marriage: a Qualitative Exploration of Attitudes, Health Challenges, and Coping Styles

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## Abstract

Consanguineous marriage is associated with increased risk of congenital physical disabilities, as well as behavioural and mental health problems among consanguineous offspring. Furthermore, mental health problems have been highlighted as being prevalent among women involved in consanguineous marriages. Despite this, there has been limited research exploring the lived experiences of consanguineous marriage among women living in the United Arab Emirates, where up to 39% of all marriages are consanguineous. The aim of this qualitative study was to explore the experiences of Emirati women involved in a consanguineous marriage in order to improve understanding of the experiential challenges faced by such individuals. Six Emirati women involved in a consanguineous marriage attended a focus group, and a thematic analysis of the interview transcript was subsequently undertaken. Five master themes emerged from the dataset: (i) Reasons for Marrying Consanguineously, (ii) Awareness and Fear of Hereditary Diseases, (iii) Emotional and Psychological Challenges, (iv) Coping Mechanisms, and (v) Confidence in Consanguineous Marriages. The master themes indicated a high level of family and parental influence as well as a cultural/traditional paradigm as being key causes for entering into a consanguineous marriage. Emotional and mental health challenges arise due to the fear of genetic problems among offspring as well as difficulties coming to terms with consanguineous marriage dynamics. Self-help coping strategies were identified such as participants turning to religion in times of need, while shunning professional psychological help. Despite these challenges, participants generally retained confidence in the consanguineous marriage process. Findings shed light on the personal and health challenges experienced by Emirati women involved in consanguineous marriages, and highlight the need for further research to better understand the support needs of this population group.

**Keywords** Consanguineous marriage · Emirati women · Psychological distress · Thematic analysis

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Consanguineous marriage is defined as a union between two individuals who are genetically related as second cousins or closer (Bittles 2001). Globally, consanguineous (from the Latin “con” meaning shared, and “sanguis” meaning blood) marriages exist among one billion people, predominantly in the Middle East, West Asia and North Africa (Hamamy 2012). Within these regions, it is estimated that consanguineous marriages account for 20–50% of all marriages (Hamamy 2012; Tadmouri et al. 2009). Studies of consanguineous marriages have typically focussed on Pakistan, Nepal, India, Africa, and Pakistani communities in the UK (Allendorf and Ghimire 2013). A very small number of studies have also been conducted in Arab countries such as Jordan, Kuwait, and Saudi Arabia, where 25–50% of all marriages are consanguineous (Hoben et al. 2016). However, few (if any) studies directly investigating the impact of consanguineous marriages have been conducted in the United Arab Emirates (UAE), where 20.7–29.7% of marriages are to first cousins, with a 54.2% overall consanguinity rate (Al-Gazali and Hamamy 2014).

Within the UAE, during the past six decades, there has been a radical cultural and economic shift after the start of oil production in 1962. The UAE has transitioned from a small closed, traditional society of 92,000 people in 1960, to a large multi-national country of 9.5 million people (United Arab Emirates Population Statistic 2018). While this growth has facilitated positive social changes and increases in wealth, there has also been an increase in social problems, including rising rates of divorce (Al Gharaibeh and Bromfield 2012). Indeed, national statistics of Emirati national divorce rates demonstrate an annual increase of 6% from 1813 in 2015 to 1922 in 2016. Such figures reflect a considerable rise given that only 11.48% of the population of the UAE are Emirati (United Arab Emirates Population Statistics 2018).

Despite Emiratis adopting many Western ideals as well as benefitting from vast modernisation including improvements in health, education, and wealth, consanguineous marriages still flourish in the UAE (Bittles and Black 2010). Indeed, Middle Eastern countries generally hold accepting and positive attitudes toward consanguineous marriages (Buunk 2017), which is different from Western nations where marriage between cousins can evoke moral indignation and disgust (Antfolk et al. 2014).

Recent studies demonstrate that consanguineous marriage is associated with increased risk of congenital physical disabilities and monogenic disorders such as thalassemia (a group of hereditary haemolytic diseases caused by faulty haemoglobin synthesis) and sickle cell anaemia (Saeed and Piracha 2016). In the UAE, this has resulted in the introduction of compulsory pre-marriage screening to prevent marriages among carriers. According to epidemiological studies, consanguineously produced offspring are at a two-fold higher risk for such autosomal recessive disorders (Shawky and Sadik 2011), with 6.25% of gene loci of offspring of first cousins being homozygous (Hosseinpour et al. 2016). Studies also demonstrate that inbreeding is associated with an increased risk of (i) morbidity in foetal, neonatal and childhood stages, (ii) congenital disorders such as anophthalmos and microphthalmos, (iii) neural tube defects, (iv) retinal dystrophies, and (v) congenital heart defects (Bittles 2002a, b; Hornby et al. 2001).

In addition to physical defects in offspring, associations also exist between consanguinity and behavioural and mental health problems among consanguineous partners and offspring (Bittles 2001). For example, studies have reported a positive correlation between

consanguinity and mental health disorders including (but not limited to) generalised anxiety disorder, social phobia, impulse control condition, specific phobia, bipolar disorder, major depression, separation anxiety disorders, schizophrenia, and personality disorders (Bener 2017; Bener et al. 2016; Bener et al. 2013; Mansour et al. 2009, 2010; Saadat 2012). There are also reports that schizophrenia is more likely to occur in offspring where a consanguineous parent has been diagnosed with a schizophrenia spectrum disorder (Dobrusin et al. 2009).

Mental health problems relating to consanguineous marriages are a particular cause for concern because, in traditional UAE Muslim culture, mental health conditions are frequently considered taboo, misunderstood and/or blamed on supernatural forces, and deemed to be a punishment for sins (Eapen and El-Rufaie 2018). When mental health issues are experienced by Emiratis, the help-seeking route is often prayer, traditional healer, or religious scholar. For example, Al-Krenawi et al. (2011) reported that Arab females' first resort is usually to turn to God through prayer during times of psychological distress, rather than to seek help from health or social care professionals. A further study found that only 37% of Arab females with psychological issues have ever consulted with a mental health specialist (Eapen and Ghubash 2004).

Both consanguineous and non-consanguineous marriages share multi-factorial marriage stressors, which can lead to the development of mental health challenges (Assaf and Khawaja 2009). However, consanguineous marriages may have additional stress burdens such as (i) coping with unanticipated infant death, birth defects and/or genetic abnormalities in offspring, (ii) adjusting to marriage with a "parental chosen" partner (the patriarchal, hierarchical nature of the UAE frequently means that women rarely enjoy the right to decide whom they will marry; Agha 2016), and (iii) coping with family pressures to conserve family lineage and/or protect family wealth (Agha 2016). Furthermore, young unmarried Emirati women are frequently ill-informed regarding the risks and potential problems of consanguineous marriage (Hasab and Jaffer 2007). For example, one study showed that only 25% of 16-year-old Arab girls demonstrated a good level of knowledge about the difficulties of consanguineous marriage (with approximately 30% having a moderate level and 45% having a low level) (Jaber et al. 2005).

An additional potential challenge associated with consanguineous marriages is the fact that divorce is mostly culturally opposed in the UAE, despite it being permissible in Islam (Al Gharaibeh and Bromfield 2012). In the UAE, a divorce will have far-reaching implications for the entire extended family, adding to psychological pressures for all parties, especially women. Indeed, Arab women are often more exposed to the destructive effects of divorce than Arab men (Jalili et al. 2017), as they tend to endure more intense and prolonged dependence, conflict and emotional pain (Akhavan-Tafti 2002). Emirati women also have limited outlets to relieve their relationship stress because they can be frequently present in the family home, under the aegis of their husbands and extended family. Additionally, it is not uncommon for UAE men to take up to three further wives and engage in personal relations outside of the home (Al Gharaibeh and Bromfield 2012).

The aforementioned psychological challenges relating to women involved in consanguineous marriages are also not helped by the fact that UAE psychological and psychiatric services are limited, with only 1.4 psychiatric beds per 10,000 people (Rezaee et al. 2017). However, it should be noted that while UAE mental health support provision is in its

infancy, the first family conflict hotline that included counselling services was launched in 2018. The UAE government also recently announced its intention to start 72 family centres for social development, with a focus on addressing tension, dysfunction, and alienation between spouses as well as reducing the national divorce rate (Al Nowais 2018).

To date, to the present authors' knowledge, there have been no UAE specific studies focussing on the lived experiences of individuals involved in consanguineous marriages. An empirical understanding of such experiences would not only help to advance scientific knowledge of the psychological and relationship dynamics relevant to being in a consanguineous marriage, but would also help to improve the provision of education to core family matriarchs, who wield considerable influence in terms of changing Emirati attitudes toward consanguineous marriage and its associated adverse outcomes (Raynor 2008). Furthermore, it is essential that primary health care providers, particularly in highly consanguineous communities, have clear evidence-based guidelines for counselling consanguineous couples to adequately address their unique relationship challenges (Hamamy 2012).

Thus, the present study sought to address the research question of what are the lived experiences of Emirati women involved in a consanguineous marriage in terms of their general attitudes toward consanguineous marriage as well as any associated mental health challenges and coping strategies that they might experience or employ. A principal aim of the study was to focus on exploring how Emirati women experience and deal with the psychological, health, and relationship challenges of consanguineous marriage. A further study aim was to shed light on the questions of how and why the practice of consanguineous marriage continues in the UAE, despite the widely recognised risks relating to the health of offspring.

## Method

Thematic analysis (Braun and Clarke 2006) was used to undertake a rigorous qualitative examination of the experiences of Emirati women involved in a consanguineous marriage.

## Participants

A total of six English-speaking Emirati women who were in a consanguineous marriage at the time of the study were enrolled. Participants were recruited from Emirati communities based in and around Dubai (UAE). Recruitment followed a word-of-mouth dissemination approach that made use of the research team's network of professional colleagues, academic colleagues, university students, non-profit making sector colleagues, and healthcare practitioners. Face-to-face discussion was deemed to be the most effective method to reach this demographic of participants. This was considered to be a more culturally syntonetic recruitment strategy versus online or poster advertising, as participants would be unlikely to respond to modern recruitment methods or questionnaires due to poor rates of engagement with the internet, social medial, poster boards, or newspapers. Indeed, the involvement of the above parties (i.e. helping to put the participant in contact with the research team) was important as mature Emirati women were unlikely to have enrolled in the study without a "referral" from a trusted individual. None of the participants were "referred" by or personally known to any member of the research team. All participants received Bateel dates as a small token of appreciation for their involvement in the study.

## Eligibility

To be eligible for inclusion in the study, participants had to be (i) Emirati women, (ii) able to speak and read English, (iii) aged 40–60 years, (iv) in a consanguineous marriage to a 1st or 2nd cousin, (v) of UAE nationality, and (vi) married to a husband of UAE nationality. The age criteria of 40–60 years was employed to provide a degree of consistency regarding the experience of consanguineous marriage (i.e. of approximately 20–40 years). Additionally, this period (i.e. 20–40 years ago) is when consanguineous marriages were particularly prominent in the UAE. Participants were excluded from the study if they were (i) too closely related to each other (i.e. sisters were excluded to prevent embarrassment or incomplete disclosure) or (ii) undergoing treatment for a neurological or severe psychiatric problem.

## Procedure

All six participants attended a single focus group discussion led by a female member of the research team (the primary researcher). The interviewer's female gender was deemed to be important for methodological reasons because in UAE culture, unrelated women and men typically do not socialise, and in Islam it is strongly discouraged for unrelated men and women to be alone together. Consequently, it was deemed that participants would find it easier to express themselves openly, freely, and truthfully to female rather than a male interviewer.

The focus group took place in a private room and lasted for approximately 60 minutes. The focus group method was chosen because it facilitates candid responses (Leung and Savithiri 2009), allowing researchers to learn and confirm meanings behind facts. Focus groups encourage a “group effect” whereby memories, understanding and ideas are stimulated and enhanced through group discussion (Lindlof and Taylor 2002). Focus group questions typically fall into five categories: (i) opening questions, (ii) original questions, (iii) transition questions, (iv) key questions (focusing on the main areas of research), and (v) concluding questions (Leung and Savithiri 2009). In the present study, the focus group was non-directive and set in a circular seating arrangement.

The focus group discussion was recorded on a Dictaphone, transcribed verbatim, and then stored on a password-protected computer hard drive. All participants provided informed consent, and the research ethics committee of the researchers' academic institution granted ethical approval for the study.

## Data Collection

A brief introduction was provided at the start of the focus group and this was followed by administering a semi-structured interview (SSI) comprising 13 questions (i.e. supported by the literature) exploring the challenges of consanguineous marriages faced by Emirati women. The SSI included questions exploring participants' (i) experiences of consanguineous marriages in terms of mental health and physical health challenges (e.g. Can you explain how consanguineous marriage has impacted your health either positively and negatively? Did you experience any psychological or emotional challenges?), (ii) coping strategies and health-seeking behaviours (e.g. How did you cope with such challenges? In respect of these marriage-related challenges, have you ever considered seeking advice or help from a counsellor or psychological professional? Why?/Why not?), and (iii) attitudes

toward consanguineous marriages (e.g. What are your views of consanguineous marriages today compared with when you were first married?). Participants were prompted for further clarification as required (Smith 1995).

## Data Analysis

Thematic analysis (TA) was used to analyse the data elicited from the focus group discussion (Braun and Clarke 2006). Transcripts were read through several times to allow the researcher to become familiar with the data. The analytical process subsequently involved phases of (i) generating initial codes, (ii) searching for master themes and sub-themes among codes, (iii) reviewing ideas, (iv) defining and naming schemes, and (v) producing the final data-driven thematic structure. The entire analytical process was repeated to solidify understanding and ensure nothing had been omitted (Shonin and Van Gordon 2015).

TA was chosen due to its focus on using the raw data to support theme interpretation (Braun and Clarke 2006; Guest 2012). TA is naturally inductive because it (i) allows themes to emerge from the dataset, (ii) encourages natural dialogue emergence, and (iii) focuses on capturing and accurately reporting participants' experiences as well as the meaning they assign to them (Willig 1999). By seeking to capture this "meaning making" process, TA can reflect and unravel the intricacies of participants' reality (Braun and Clarke 2006).

## Validation and Reflexive Appraisal

The researchers employed "bracketing off" of their beliefs, ideologies, cultural values, and knowledge in order to remain impartial and unbiased. To ensure the integrity of the codes, sub-themes, and master themes, a second member of the research team independently read and re-read all of the data, and then assessed the proposed thematic structure for accuracy and consistency (Van Gordon et al. 2016). This process did not result in any notable disagreements between the two research team members. Finally, validation techniques such as requesting feedback from participants on the summary of themes were employed (Sandelowski and Barroso 2002; Yardley 2000).

## Results

All six female UAE participants who met the eligibility criteria provided insights relating to their experiences of being involved in a consanguineous marriage. All participants had been

**Table 1** Master themes and sub-themes

Master themes	Sub-themes
1. Reasons for marrying consanguineously	1.1 Parental and/or family influence 1.2 Cultural paradigm on consanguinity
2. Awareness and fear of hereditary diseases	
3. Emotional and psychological challenges	3.1 Fear 3.2 Psychological distress
4. Coping mechanisms	
5. Confidence in consanguineous marriages	

married to a single spouse for a period ranging between 27 and 43 years. Five master themes (some with subordinate themes) emerged from the dataset (Table 1), and each participant was assigned a randomly selected letter for the purposes of maintaining anonymity (B, L, M, S, F, and A).

### Master Theme 1: Reasons for Marrying Consanguineously

The first master theme of “Reasons for Marrying Consanguineously” comprised two sub-themes, of which the first corresponded to “parents and/or family influence” as a key factor underlying marital choices. For example, Participant L stated that “*I followed the advice of my family*”, and Participant B stated that “*[I married consanguineously] because of my family, I was 16, and all our family married like this, there was no other way [of marriage], my parents wanted me to marry him, also my mother wanted him, so I agreed... I took the advice of my parents because they knew best.*” Furthermore, participants reported that they belong to patriarchal families, with the father wielding considerable power. For example, Participant S stated that “*he came to my father to ask to marry me*”, and “*marriages are all approved by parents*”.

In addition to making it clear that it was influence from their parents and family that determined their marriage choice, participants reported that at the time of marriage, they felt they were not mature enough to make such an important life decision. For example, Participant A reported that “*most girls are very young 14 or 15 maybe 17 or 18...when I married I didn't know anything*” and that her parents were in the best position to know if “*this man is not good for her*”.

The other sub-theme under this master theme was “cultural paradigm on consanguinity”, which related to participants reporting that their involvement in a consanguineous marriage was largely a culmination of cultural and tradition factors. Indeed, consistent with the view of Al-Arrayed (1995), all participants appeared to believe that consanguineous marriages are inscribed deep into the heart of Emirati culture. Consequently, participants explained they gave in to cultural pressure in order to “*follow our tradition*” (Participant F). Participant L explained that “*at this time this was the way, we didn't know anything different*”, and Participant A reported that “*it is in our tradition and culture*”.

However, participants acknowledged that they were easily influenced at such a young age and recognised the importance of education for raising awareness and informing choices concerning consanguineous marriage. For example, Participant A stated that “*I was very young with no education*”, and Participant F shared her view that “*now women have more [spousal] choice, they are more free and more educated, it is different than before*”. Similarly, Participant S stated that “*times have changed and what was good for us 40 years ago may not be good for us now*”.

### Master Theme 2: Awareness and Fear of Hereditary Diseases

This master theme did not contain any sub-themes and related to participants' concerns and fear of hereditary diseases linked to consanguineous marriage. For example, Participant F stated that “*because of consanguineous marriage ... [diabetes] is in our family genetics*”. The same participant also revealed how she almost lost her niece to such a disease: “*We always have to watch and control what she is eating and what she is doing, also my sister is very scared ... before she almost died when she was sleeping when her sugar went too low*”.

Similarly, Participant A stated, “*in our family we have a lot of health problems, diabetes, thalassemia, and heart attack, sometimes it was very difficult to be strong with these problems*”, and Participant S reported that “*we have diabetes (in the family), it is very difficult*”.

Consistent with the account of Abdulrazzaq et al. (2007), all participants seemed to be aware that consanguineous marriage can cause hereditary diseases. For example, Participant L stated that “*it is right, close marriages can increase the chances of having health problems in family, I know families who have many health problems because of close marriages*”. Similarly, Participant F stated that “*Everyone knows diseases like breast cancer, thalassemia and heart problems can be from your parents’ genetics*”.

Participants also demonstrated awareness that diseases such as sickle cell anaemia and thalassemia may be identified through pre-marriage screenings. For example, Participant M shared her view that “*testing and technology is very important ... all my daughters all have mammograms from 18 [years old] to check and my sisters also do checks*”. Participant F stated that “*with the testing stopping thalassemia and some other problems... there are less children born with problems*”. Furthermore, in line with the fact that Emiratis are eligible to receive free pre-marital testing (Bennett et al. 2002), Participant L commented that “*the government hospital gives Emiratis treatment free, if we had to pay it would be very difficult*”.

### Master Theme 3: Emotional and Psychological Challenges

Participants reported experiencing psychological and emotional challenges due to being in a consanguineous marriage. This master theme comprised two sub-themes of “fear” and “psychological distress”. In respect of the first sub-theme, participants reported experiencing fear of their parents, new husbands and marriages. For example, Participant F stated “*I remember when I was married, I was so afraid, afraid of my husband, also afraid of making my father angry, when I grew up I would never answer back or say no to him, I was really scared I will make him angry, I loved him a lot, but he was scary ... I remember being so afraid, especially for my wedding night ... I was afraid to upset my new husband because maybe he will complain to my father about me*”. Similarly, when reflecting on her marriage, Participant L stated “*I was too afraid ... I was very afraid of my new situation*”.

In respect of the second sub-theme identified under this master theme, all participants reported that they experienced psychological distress due to being in a consanguineous marriage. For example, Participant L stated “*I suffered from depression all my married life ... I was not happy in my marriage*”. Participant M reported feeling lonely and unsupported in respect of being diagnosed with cancer, which was considered to be a taboo subject within her family: “*I was also ashamed to talk with my family, I felt embarrassed ... I didn’t want people to know in my family*”. Furthermore, Participant F made reference to psychological distress and dissatisfaction with her own as well as her children’s consanguineous marriage, and stated that “*I didn’t encourage this ... morally I think [consanguineous marriage] is wrong ... it’s like incest*”.

### Master Theme 4: Coping Mechanisms

The master theme of “coping mechanisms” did not contain any sub-themes and related to how participants cope with the challenges of consanguineous marriage. All participants acknowledged that religion and Holy Books were a good source of hope and guidance (Bittles 2008). Participants reported the Quran as being a source of peace and guidance, and all participants



appeared to share Participant M's view that *"you must read Quran, there is solution for everything, you get strength to pass the hard times ... reading the Quran helped me a lot"*.

Participants also acknowledged conversation with family and friends as an important coping mechanism. For example, in this context Participant M stated that *"I also talk with my friends or sisters, sometimes my husband or mother"*, and Participant L reported that *"My mother and older sister talked to me, so I knew a bit what to expect"*. Furthermore, all participants explained that they used strategies such as walking and exercise to help cope with marriage-related challenges. In this respect, Participant S explained that *"I will walk and do yoga ... I walk a lot"*.

While participants were generally not in favour of seeking professional help to assist with challenges, they acknowledged that some modern Emirati women who are in consanguineous marriages may seek help from a psychologist or counsellor. For example, Participant F stated that *"[if the mental illness was serious] you need professional help"*, and Participant L shared her view that while she is against seeking help outside the family, there are cases when it is necessary to do so: *"some people have these illnesses that they need medication, then you must go"*. Participant L also indicated that there were circumstances under which she would seek professional help: *"if I have depression like before ... now there are many medicines which help, and you can talk to people to help you"*.

### **Master Theme 5: Confidence in Consanguineous Marriages**

This master theme also did not contain any sub-themes and related to participants' attitude that despite experiencing psychological and emotional challenges, they also retained confidence in consanguineous marriages. For example, Participant B stated *"this [consanguineous] marriage is good, maybe many young women do not like it so much now, but I think it is very good for many reasons"*. Participant B felt that consanguineous marriage *"makes the family stronger"*, and Participant A stated that *"in the old days our parents and family know best, and still today, nothing changed"*. Participant F experienced that consanguineous marriage fosters greater protection of wealth and control of family and financial assets: *"there are many good things with this marriage, there is less divorce, it is easy to control everyone within the family, money doesn't leave the family, it makes the family stronger"*. Participant F's perspective was in line with Participant B's view that *"everyone knows and helps each other, sons can work in their fathers or uncles' businesses"*.

Participants also reported that marrying close relatives helped to foster marriage harmony and conflict resolution. For example, participant F stated, *"I am happy with my marriage because our family is very close, my husband's family and my family have the same thinking, so we don't fight, if we do there is always someone to help us work things out"*. Participant B also reported that solving marital problems is made easy when partners are related because *"we know each other, it is easier, we think in the same way and we have the same standards"* and *"we always resolve our problems, sometimes my mother, mother in law or our father will help, but normally we fix the problems ourselves"*.

Furthermore, with the exception of Participant F, all participants reported having encouraged their offspring to marry consanguineously. Indeed, participant M stated that while five of her children were already married to their cousins, two of her sons are in "love" marriages but only because *"I knew the family and they were respectable, one of the fathers is a minister in the Government so the family is very good"*. Similarly, Participant L stated *"mashallah, all my eight children are married from the family"*.

## Discussion

To the authors' knowledge, this was the first study to qualitatively explore the experiences of Emirati women involved in a consanguineous marriage. A thematic analysis of the raw data identified five master themes of (1) Reasons for Marrying Consanguineously, (2) Awareness and Fear of Hereditary Diseases, (3) Emotional and Psychological Challenges, (4) Coping Mechanisms, and (5) Confidence in Consanguineous Marriages.

The first master theme depicted the present participant sample as young, naïve, and poorly educated at the time they were married. Participants explained how this meant they were easily influenced by their family's preference for them to continue with a marriage tradition that is inscribed deep into Emirati culture (Al-Arrayed 1995). Indeed, consanguinity has been practised in the UAE even before the introduction of Islam in the seventh century (Al-Gazali and Hamamy 2014). Participants generally experienced some advantages to following the traditional consanguineous marriage route, particularly in the form of wealth protection and intra-family support (Al-Gazali and Hamamy 2014).

The second master theme is consistent with previously documented concerns regarding the prevalence of genetic and rare recessive disorders in the Emirati population (Madi et al. 2005). Despite free mandatory pre-marital testing, UAE healthcare organisations have reported high prevalence rates of recessive genetic-carried disorders, metabolic diseases, thalassemia, and sickle cell anaemia (Madi et al. 2005). This is consistent with findings from the present research in which all participants acknowledged that hereditary and genetic disorders are an accepted common feature in their family.

In line with the fact that consanguineous marriage poses health risks to offspring (Al Hosani et al. 2005), all participants appeared to be aware (including when they were first married) that their consanguineous offspring had an increased likelihood of genetic complications. However, this is inconsistent with Jaber's (2004) finding that nearly half of young Arab women have a low level of awareness of the problems associated with consanguineous marriage. This anomaly may be due to the fact that UAE nationals must undergo free pre-marital genetic screening, which is not the case for all Arab countries. All participants in this study were aware that such screening strategies prevent diseases such as thalassemia, sickle cell anaemia, certain heart complications, and breast cancer (Mansour et al. 2010). Thus, preventative screening, combined with health promotion and awareness raising strategies, appears to be at least partially effective in educating Emirati women and dispelling misconceptions regarding the prevention of heritable diseases (Bennett et al. 2002).

The third master theme referred to multi-factorial psychological marriage stressors, which were divided into sub-themes of "fear" and "depression". In line with others' findings (Assaf and Khawaja 2009), participants attributed the marriage-related fear that they experienced to being newly married, young at the point of marriage, naïve, undergoing a change of circumstances, and lacking in coping skills. They attributed the psychological distress they experienced to factors such as being removed from their immediate family, adapting to the husband's family and their role as a mother, feeling unable to talk about health-related matters deemed to be taboo by the family, and the existence of genetic and inherited conditions within their family.

The fourth master theme revealed some self-help mechanisms (e.g. reading the Quran, physical exercise) employed by participants to cope with the challenges they experienced due to being in a consanguineous marriage. However, all participants reported that they had never sought professional help for psychological issues, which is consistent with the view that

mental health problems are often deemed to be taboo in UAE culture (Eapen and El-Rufaie 2018). Indeed, Al-Krenawi and Graham (2011) asserted that Arab females' first resort is usually to turn to God through prayer and religious texts during times of psychological distress. While one participant stated that she may consider seeking professional help as a possible future strategy for coping with psychological distress, in general the present group of participants appeared to view marriage-related psychological challenges as private and not for discussion outside the family circle.

Understanding the emotional and psychological challenges (master theme 3) and (self-help) coping strategies (master theme 4) used by Emirati women involved in consanguineous marriages can help healthcare providers develop clear evidence-based guidelines for removing stigma associated with professional help seeking. Indeed, augmenting engagement of consanguineous couples in psychotherapy has been identified as a key health need and challenge for this population group (Hamamy 2012). Based on the accounts of the participants included in this study, efforts to increase the appeal and acceptability of such psychotherapeutic support would be best directed at core family matriarchs, who appear to be open to its potential utility. Furthermore, in cases where consanguineous couples have previously produced babies with genetic defects, genetic counselling in lieu of genetic engineering may also be an effective approach (Berner et al. 2016).

The fifth master theme indicated that while participants were aware of the health risks that consanguineous marriages poses to offspring, they were invariably supportive of consanguineous marital unions. This is in line with Khoury and Massad's (2000) assertion that UAE culture encourages consanguineous marriages, and that the consensual view among UAE nationals is that such marriages are fundamental to promoting problem solving, family wealth retention, compatibility between spouses, and close family ties.

Preference for consanguineous marriages is primarily socially driven, with highly consanguineous communities believing they foster couple and family stability due to shared social relationships prior to marriage, therefore increasing compatibility between couples and other family members (Hamamy 2012). Consanguineous marriage is asserted to strengthen the family unit, ties, and solidarity, providing an opportunity to pass on cultural values and maintain cultural continuity (Sandridge et al. 2010). Additionally, the woman's family may be better able to monitor her husband and husband's family's actions, supporting her in the case of abuse (Jacoby and Mansuri 2010; Bittles 2012). Qualitative evidence indicates that this can actually strengthen the relationship between spouses (Mushfiq Mobarak et al. 2019). However, despite their general support for consanguineous marriage, it should be noted that the participants in this study appeared to be aware that the level of social and moral acceptance of consanguineous marriage was steadily declining.

The five master themes that emerged from the dataset appeared to reflect an impasse between attitude, culture, religion, health awareness, education, government policies, and economic development. More specifically, the present findings demonstrate that for the Emirati wives involved in this study, family pressures and traditional customs asserted (and continue to assert) an influence over the choice of marital partner. This also appears to be the case with some national role models such as various UAE leaders and Royal family members, who openly engage in consanguineous marriages. This is despite the fact that the UAE has previously been ranked as 6th out of 193 countries in terms of the percentage of babies born with birth disorders (Christianson et al. 2006).

The aforementioned findings should be viewed in light of the limitations of the study. Given that the interviews were conducted in English and proficiency in English language was

an inclusion criteria, the experiences of a valuable demographic of participant are not included here. Furthermore, some participants occasionally made use of Arabic words or expressions (e.g. “*Mashallah*”). In such cases, questions were asked by the interviewer to ascertain the contextual meanings of any unknown Arabic expressions. However, this may have led to a loss of meaning in a small number of instances. Given the qualitative nature of the study, the experiences of the six Emirati women included in this study may not generalise to all women involved in a consanguineous marriage in the UAE. In particular, given that this study focussed on women aged at least 40 years, the findings may not reflect the experiences and views of younger Emirati women who have married consanguineously.

For the participants of this study, being married consanguineously appeared to give rise to a range of psychological and health challenges. However, despite the widely recognised risks relating to the health of their offspring, and despite the psychological distress experienced as a result of being in a consanguineous marriage, the present group of Emirati women appeared to prefer the traditional route of consanguineous marriage for future generations. Further qualitative research with a broader participant pool, and perhaps in comparison with other Arab countries, would help to ascertain the wider generalisability of these findings. A qualitative exploration of challenges faced by consanguineously married Emirati men would also expand scientific understanding in this area. Nevertheless, based on the accounts on the present group of participants, an important implication is that for the time being, it is likely that consanguineous marriage will continue to be supported and encouraged by consanguineously married Emirati matriarchs.

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## Compliance with Ethical Standards

**Conflict of Interest** All authors declare that they have no conflicts of interest.

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## References

- Abdulrazzaq, Y. M., Bener, A., Al-Gazali, L. I., Al-Khayat, A. I., Micallef, R., & Gaber, T. (2007). A study of possible deleterious effects of consanguinity. *Clinical Genetics*, *51*, 167–173. <https://doi.org/10.1111/j.1399-0004.1997.tb02447.x>.
- Agha, N. (2016). Kinship in rural Pakistan: consanguineous marriages and their implications for women. *Women's Studies International Forum*, *54*, 1–10. <https://doi.org/10.1016/j.wsif.2015.10.005>.
- Akhavan-Tafti, M. (2002). Divorce stages and aftermaths. *Journal Women's Studies*, *1*, 125–152.
- Al-Gazali, L., & Hamamy, H. (2014). Consanguinity and dysmorphology in Arabs. *Human Heredity*, *77*, 93–107.
- Al Gharaibeh, F., & Bromfield, N. (2012). Analysis of divorce cases in the United Arab Emirates: a rising trend. *Journal of Divorce and Remarriage*, *53*, 436–452. <https://doi.org/10.1080/10502556.2012.682896>.

- Al Hosani, H., Salah, M., Abu Zeid, H., Farag, H. M., & Saade, D. (2005). The national congenital anomalies register in the United Arab Emirates. *Eastern Mediterranean Health Journal*, *11*, 690–699.
- Al Nowais, S. (2018). Marital problems among Emiratis down to finances and social media, survey finds. *The National Newspaper*. Retrieved from: <https://www.thenational.ae/uae/marital-problems-among-emiratis-down-to-finances-and-social-media-survey-finds-1.751121> on 2nd May 2019.
- Al-Arrayed, S. S. (1995). The frequency of consanguineous marriages in the State of Bahrain. *Bahrain Medical Bulletin*, *17*, 63–66.
- Al-Krenawi, A., Graham, J., & R. (2011). Mental health help-seeking among Arab university students in Israel, differentiated by religion. *Mental Health, Religion and Culture*, *14*(2), 157–167. <https://doi.org/10.1080/13674670903454229>.
- Allendorf, K., & Ghimire, D. J. (2013). Determinants of marital quality in an arranged marriage society. *Social Science Research*, *42*(1), 59–70.
- Antfolk, J., Lieberman, D., Albrecht, A., & Santtila, P. (2014). The self-regulation effect of fertility status on inbreeding aversion: when fertile, disgust increases more in response to descriptions of one's own than of others' inbreeding. *Evolutionary Psychology*, *12*, 621–631. <https://doi.org/10.1177/147470491401200308>.
- Assaf, S., & Khawaja, M. (2009). Consanguinity trends and correlates in the Palestinian territories. *Journal of Biosocial Science*, *41*, 107–124. <https://doi.org/10.1017/S0021932008002940>.
- Bener, A. (2017). Does consanguinity increase the risk of mental illnesses? A population-based study. *European Psychiatry*, *41*, S512.
- Bennett, R., Motulsky, A., Bittles, A., Hudgins, L., Uhrich, S., Doyle, D., et al. (2002). Genetic counselling and screening of consanguineous couples and their offspring: recommendations of the National Society of genetic Counsellors. *Journal of Genetic Counselling*, *11*, 97–119. <https://doi.org/10.1023/A:1014593404915>.
- Berner, A., Yousafzai, M. T., Al-Hamaq, A. O. A., Mohammad, A. G., & DeFronzo, R. A. (2013). Parental transmission of type 2 diabetes mellitus in a highly endogamous population. *World Journal of Diabetes*, *4*, 40–46. <https://doi.org/10.4239/wjcd.v4.i2.40>.
- Berner, A., Abou-Saleh, M. T., Mohammed, R. M., Defecah, E. E., Ventriglio, A., & Bhugra, D. (2016). Does consanguinity increase the risk of mental illnesses? A population-based study. *International Journal of Culture and Marriage Studies*, *9*, 172–181.
- Bittles, A. H. (2001). Consanguinity and its relevance to clinical genetics. *Clinical Genetics*, *60*, 89–98. <https://doi.org/10.1034/j.1399-0004.2001.600201>.
- Bittles, A. H. (2002a). The impact of consanguinity on the Indian population. *Indian Journal of Human Genetics*, *2*, 45–51.
- Bittles, A. H. (2002b). Endogamy, consanguinity and community genetics. *Journal of Genetics*, *81*, 91–98. <https://doi.org/10.1007/BF02715905>.
- Bittles, A. H. (2008). A community genetics perspective on consanguineous marriage. *Public Health Genomics*, *11*, 324–330. <https://doi.org/10.1159/000133304>.
- Bittles, A. H., & Black, M. L. (2010). Consanguineous marriage and human evolution. *Annual Review of Anthropology*, *39*, 193–207. <https://doi.org/10.1146/annurev.anthro.012809.105051>.
- Bittles, A. H. (2012). Consanguinity in Context. Cambridge: Cambridge University Press.
- Braun, V., & Clarke, C. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101.
- Buunk, A. (2017). All in the family: attitudes towards cousin marriages among young Dutch people from various ethnic groups. *Evolution, Mind and Behaviour*, *15*, 1–15. <https://doi.org/10.1556/2050.2017.0001>.
- Christianson, A., Howson, C., & Modell, B. (2006). *Global report on birth defects: the hidden toll of dying and disabled children March of Dimes Birth Defects Foundation*. New York: White Plains.
- Dobrusin, M., Weitzman, D., Levine, J., Kremer, I., Rietschel, M., Maier, W., & Belmaker, R. H. (2009). The rate of consanguineous marriages among parents of schizophrenic patients in the Arab Bedouin population in Southern Israel. *World Journal of Biological Psychiatry*, *10*, 334–336. <https://doi.org/10.3109/15622970701849960>.
- Eapen, V., & El-Rufaei, O. (2018). United Arab Emirates. *International Psychiatry*, *5*(2), 38–40. <https://doi.org/10.1192/S1749367600005580>.
- Eapen, V., & Ghubash, R. (2004). Help-seeking for mental health problems of children: preferences and attitudes in the United Arab Emirates. *Psychological Reports*, *94*(2), 663–667. <https://doi.org/10.2466/pr0.94.2.663-667>.
- Guest, G. (2012). *Applied thematic analysis*. Thousand Oaks: Sage Publications.
- Hamamy, H. (2012). Consanguineous marriages: preconceptions in primary health care settings. *Journal of Community Genetics*, *3*, 185–192. <https://doi.org/10.1007/s12687-011-0072-y>.
- Hasab, A., & Jaffer, A. (2007). Congenital anomalies among Omani births: a case-control approach. *Bulletin High Institute Public Health*, *27*, 93–99.

- Hoben, A. D., Buunk, A. P., & Fisher, M. L. (2016). Factors influencing the allowance of consanguineous marriages in the standard cross-cultural sample. *Journal of Evolutionary Behavioural Sciences*, *10*, 98–108.
- Hornby, S. J., Dandona, L., Foster, A., Jones, R. B., & Gilbert, C. E. (2001). Clinical findings, consanguinity, and pedigrees in children with anophthalmos in southern India. *Journal of Medical Child Neurology*, *43*, 392–398. <https://doi.org/10.1017/S0012162201000731>.
- Hosseinpour, M., Deris, F., Solati-Dehkordi, K., Heidari-Soreshjani, S., Karimi, N., & Teimori, H. (2016). The effect of consanguineous marriage on mental health among the students of the Shahrekord University of Medical Sciences. *Journal of Clinical and Diagnostic Research*, *10*(11). <https://doi.org/10.7860/JCDR/2016/21389.8794>.
- Jaber, L., Romano, O., Halpern, G. J., Livne, I., Green, M., & Shohat, T. (2004). Awareness about problems associated with consanguineous marriages: Survey among Israeli Arab adolescents. *Journal of Adolescent Health*, *36*(6), 530.
- Jaber, L., Romano, O., Halpern, G. J., Livone, I., Green, G., & Shohat, T. (2005). Awareness about problems associated with consanguineous marriages: survey among Israeli Arab adolescents. *Journal of Adolescent Health*, *5*, 530. <https://doi.org/10.1016/j.jadohealth.2004.08.003>.
- Jacoby, H. G., & Mansuri, G. (2010). Watta Satta: bride exchange and women's welfare in rural Pakistan. *American Economic Review*, *100*(4), 1804–1825.
- Jalili, L., Najar, S., Nezamivand-Cheghini, S., & Yarazadeh, M. (2017). The relationship between factors related to divorce request and mental health among divorce applicant women referred to legal medicine organization in Ahvaz, Iran. *Journal of Family & Reproductive Health*, *11*, 128–137.
- Khoury, S. A., & Massad, D. F. (2000). Consanguinity, fertility, reproductive wastage, infant mortality and congenital malformations in Jordan. *Saudi Medical Journal*, *21*, 150–154.
- Leung, F. H., & Savithiri, R. (2009). Spotlight on focus groups. *Journal of Canadian Family Physicians*, *55*, 218–219.
- Lindlof, T. R., & Taylor, B. C. (2002). *Qualitative communication research methods* (2nd ed.). Thousand Oaks: Sage.
- Madi, S. A., Al-Naggar, R. L., Al-Awadi, S. A., & Bastaki, L. A. (2005). Profile of major congenital malformations in neonates in Al-Jahra region of Kuwait. *Eastern Mediterranean Health Journal*, *11*, 700–706.
- Mansour, H., Klei, L., Wood, J., Talkowski, M., Chowdari, K., Fathi, W., & El-Boraie, H. (2009). Consanguinity associated with increased risk for bipolar I disorder in Egypt. *American Journal of Medical Genetics Part B: Neuropsychiatric Genetics*, *150*, 879–885.
- Mansour, H., Fathi, W., Klei, L., Wood, J., Chowdari, K., Watson, A., & Yassin, A. (2010). Consanguinity and increased risk for schizophrenia in Egypt. *Schizophrenia Research*, *120*, 108–112.
- Mushfiq Mobarak, A., Chaudry, T., Brown, J., Zelenska, T., Nizam Khan, M., Chaudry, S., Abdul Wajis, R., Bittles, A. H., & Li, S. (2019). Estimating the health and socioeconomic effects of cousin marriage in South Asia. *Journal of Biosocial Science*, *51*(3), 418–435.
- Raynor, P. (2008). Born in Bradford, a cohort study of babies born in Bradford, and their parents. *BMC Public Health*, *8*, 327. <https://doi.org/10.1186/1471-2458-8-327>.
- Rezaee, N., Salar, A., Ghaljaei, F., Seyedfatem, N., & Rezaei, N. (2017). Understanding the contextual factors affecting women's health in Sistani and Baluchistan province in Iran: a qualitative study. *International Journal of Nursing Midwifery*, *5*, 317–328.
- Saadat, M. (2012). Influence of parental consanguineous marriages on age at onset of bipolar disorder. *Psychiatry Research*, *198*, 327–328. <https://doi.org/10.1016/j.psychres.2012.01.013>.
- Saeed, U., & Piracha, Z. Z. (2016). Thalassemia: impact of consanguineous marriages on most prevalent monogenic disorders of humans. *Asian Pacific Journal of Tropical Disease*, *6*, 837–840.
- Sandelowski, M., & Barroso, J. (2002). Reading qualitative studies. *International Journal of Qualitative Methods*, *1*(1), 74–108.
- Sandridge, A. L., Takeddin, J., Al-Kaabi, E., & Frances, Y. (2010). Consanguinity in Qatar: knowledge, attitude and practice in a population born between 1946 and 1991. *Journal of Biosocial Science*, *(42)*, 59–82. <https://doi.org/10.1017/S002193200999023X>
- Shawky, R. M., & Sadik, D. I. (2011). Congenital malformations prevalent among Egyptian children and associated risk factors. *Egyptian Journal of Medical Human Genetics*, *12*(1), 28–30.
- Shonin, E., & Van Gordon, W. (2015). Managers' experiences of meditation awareness training. *Mindfulness*, *4*, 899–909.
- Smith, J. A. (1995). Semi-structured interviewing and qualitative analysis. In J. A. Smith, R. Harre, & L. Van Langenhove (Eds.), *Rethinking methods in psychology* (pp. 9–26). London: Sage.
- Tadmouri, G. O., Nair, P., Obeid, T., Al Ali, M. T., Al Khaja, N., & Hamamy, H. A. (2009). Consanguinity and reproductive health among Arabs. *Reproductive Health*, *6*, 17.

- United Arab Emirates Population Statistics 2018 (2018). Global Media Insight. Retrieved from: [https://www.globalmediainsight.com/blog/uae-population-statistics/#population\\_demographics](https://www.globalmediainsight.com/blog/uae-population-statistics/#population_demographics). 2 May 2019.
- Van Gordon, W., Shonin, E., & Griffiths, M. D. (2016). Meditation awareness training for individuals with fibromyalgia syndrome: an interpretative phenomenological analysis of participant's experiences. *Mindfulness*, 7, 409–419.
- Willig, C. (1999). Psychology and health promotion. *Journal of Health Psychology*, 4(2), 275–276. <https://doi.org/10.1177/135910539900400202>.
- Yardley, L. (2000). Dilemmas in qualitative health research. *Psychology and Health*, 15, 215–228.

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