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THE FEDERATION OF STUDENT ISLAMIC SOCIETIES PROGRAMME TO CHALLENGE MENTAL HEALTH STIGMA IN MUSLIM COMMUNITIES IN ENGLAND: THE FOSIS BIRMINGHAM STUDY

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SUMMARY

Background: *1 in 4 people experience mental health problems at some point during their lives and Muslims are no exception. Exacerbating the morbidity and mortality associated with mental health problems in Muslims is Islamophobia. Stigma and shame are major barriers to accessing and using mental health services and many Muslims with mental health problems do not receive the treatment they need. The Federation of Student Islamic Societies (FOSIS) United Kingdom branch organized a mental health conference to challenge the stigma attached to psychological problems in Muslims and to encourage care seeking in this group.*

Design: *We conducted a single arm, pre-post comparison study on Muslims who attended the FOSIS mental health conference in Birmingham Medical School, England. Validated stigma scales measuring knowledge, attitudes and behavior were administered on participants before and immediately after exposure to the programme. Participants were also asked to respond to statements, the items of which were on a 5-point Likert scale, about the role that Islam plays in Muslim mental health, stigma as a barrier for Muslims with mental health problems to accessing and using mental health services and if they felt inspired to challenge stigma.*

Results: *50/250 (20%) of participants completed the study. There were statistically significant improvements in the 'Reported and Intended Behavior' score (p=0.0036), the 'Inspired to Take Action' Score (p=0.0202) and the 'Incorporating Islamic Principles into Mental Health Treatment for Muslims is Beneficial' score (p=0.0187).*

Discussion: *The findings of our study suggest that a 'bespoke' Muslim mental health conference comprised of talks delivered by experts in Islam and mental health and a Muslim who has first-hand experience of psychological distress might be effective at reducing mental health stigma in the Muslim community. Our results should help to inform the design, development and delivery of future Muslim mental health conferences however more robust research in this area is needed.*

Key words: *stigma – Muslims – Islamophobia - experts by experience - psychological problems*

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The prevalence of mental health problems in Muslim majority countries

Mental health can be defined as one's state of well-being which can result in individuals forming relationships with others, enabling them to contribute to their communities. It can also include the ability of one to deal with adverse life events (http://www.who.int/features/factfiles/mental_health/en/).

Mental illness is a diagnosable condition that affects mental health and can affect one's ability to carry out activities of daily living. Some examples include depression, anxiety and schizophrenia (Goldman 2006, http://www.mayoclinic.org/diseases-conditions/mental-illness/basics/definition/con-20033813)

The World Health Organization (WHO) predicts that 450 million people suffer from a mental health condition (http://www.who.int/whr/2001/media_centre/press_release/en/).

A systematic analysis for the 2013 Global Burden of Disease study ranked major depressive disorder as the second leading cause for years lived with disability (YLD), second to lower back pain. In all countries surveyed, major depressive disorder was in the top ten causes for YLD, proving it to be a major problem in both developed and developing countries. (Vos 2015)

Mental and substance abuse disorders accounted for 183.9 million disability adjusted life years (DALY) in the year 2010 alone. In this statistic, schizophrenia accounted for over 7% of all DALY's and major de-

pressive disorders for over 40% of all DALY's (Whiteford 2013). In England One in six currently suffer from a common mental disorder, with rates higher in women than in men (McManus 2016). On average, people with mental illness live less by 15 to 20 years (Thornicroft 2013).

Protective factors against the development of psychiatric diseases include positive help seeking behavior, supporting family environment, positive role models and socio-economic stability (National Research Council 2009). Religion may also have a protective role especially in the prevention of suicide in patients with mood disorders. In America, the rate of suicide for the afro-Caribbean population is below the rate of suicide in the Caucasian community. This difference is thought to be due to the involvement of afro-Caribbean people with their church (Malone 2000). In depressed in-patients, less suicidal behavior is seen for those who associate themselves with a religion, which is thought to be due to a greater moral objection to suicide (Dervic 2004).

According to the PEW Research Centre, there are currently 1.57 billion Muslims, which accounts for 20% of the worlds population. 60 % of Muslims are found in Asia and approximately 20% of Muslims are found in the Middle East and North Africa. The greatest proportion of Muslim majority countries exists in the Middle East and North Africa. Despite countries such as India having a low percentage of Muslims compared to their population the country holds 10% of the worlds Muslim population, making it the third largest Muslim community behind Indonesia (the largest) and Pakistan (the second largest) http://www.pewforum.org/2009/10/07/mapping-the-global-muslim-population

Islam believes that there is no deity worthy of worship but Allah, and it is Allah who causes everything including psychiatric diseases. Mental illness in Islam can be viewed as a trial and as a means of purifying oneself. Mental illness can also be a way to reconnect with Allah and further strengthen one's faith (Daar 2001). A study looking at American Muslim perceptions to healing revealed a God centric view. This method of healing can be accessed via prayer, recitation of the Quran and through Islamic spiritual leaders, imams (Padela 2012). Imams are often consulted with issues regarding health, especially mental health, and for this reason they are seen to be key figures in promoting health-seeking behaviors amongst Muslims (Ciftci 2013).

94.6% of Egypt's population is Muslim, which makes up 5% of the worlds Muslim population. Ghanem and colleagues conducted a national survey considering the prevalence of psychiatric diseases in Egypt. The study found that over 16 % of adults currently suffer from a mental health condition. The most common disorder reported was mood disorders. In the study women were shown to have a significantly higher chance of having a mental health condition. Mental health was often associated with marital status and occupation. Divorced or widowed women had a higher prevalence of psychiatric diseases whereas women with higher education were less likely to obtain psychiatric diseases. An elevated level of psychiatric diseases was also reported in people living with long-term conditions such as heart disease (Ghanem 2009). Similar rates of mental illness were also reported in other Muslim countries such as Dubai and Lebanon (Abou-Saleh 2001, Demyttenaere 2004). Mood and anxiety problems were the most common disorders found in the study. However similar rates are also seen when looking at other western countries such as USA or Europe (Demyttenaere 2004).

In Iran, a mental health survey revealed that a fifth of the people in the study may be suffering from a psychiatric disease with prevalence slightly higher in rural areas in comparison to urban. The prevalence of mental health disorders were found to be higher in divorced, widowed, unemployed and retired people (Noorbala 2004). Another study looking at the epidemiology of mental health disorders in Iran found that nearly 11% of people suffer from a mental health problem. These studies corroborate findings in Egypt and other Muslim majority countries that rates of psychiatric disorders are greater amongst women, retired people and unemployed people (Mohammadi 2005).

A study conducted in Pakistan, which holds the second highest population of Muslims, looked at the relationship that tuberculosis patients have with anxiety and depression. The results revealed a higher level of psychiatric diseases in this group (Husain 2008). Higher levels of anxiety and depression were also reported amongst students studying at a medical college in Karachi, Pakistan. People who are more likely to suffer from mood disorders in this study were suffering from addiction, bereavement or had a family history of psychiatric diseases (Khan 2006). These studies suggest that in Pakistan elevated risk from suffering from psychiatric diseases include illness, family history or any adverse life events (Karim 2004).

In Lebanon, the prevalence of mental illness has been reported to be the same as rates in Western Europe. Despite this, treatment of psychiatric diseases is far greater in Europe than Lebanon (Karam 2006). These problems may exist in Muslim majority countries due to psychological problems being viewed as a private family matter and not something to seek professional help for. An emphasis may also be placed on family respect and honor, and a fear of tarnishing reputation should the affected individual seek help (Youssef 2006). There may also be a strong perception that psychiatric diseases may be caused by supernatural powers, such as Jinn. As a result, people may choose to visit faith healers instead of mental health professionals (Saeed 2000). A proportion of Muslims also view mental illness as a punishment despite mainstream Muslim practice believing illness not meant to be perceived as a form of punishment (Karam 2006).

The prevalence of mental health problems in Muslim minority countries

3% of the world's Muslim population lives in Europe and less than 1% in North America (http://www.pewforum.org/2009/10/07/mapping-the-global-muslim-population).

The official religion of Somalia is Islam and Somali refugees living in Norway report an elevated level of nervous system symptoms. In addition, most refugee people report feeling lonely which may be due to the lack of a Somali community in Norway in comparison to Britain, where a larger immigrant Somali community exists. Many Somalis in Norway who experience mood disorders often react by separating themselves from their own community, which in turn may begin to cause psychiatric problems (Fangen 2006). Humiliating experiences faced by refugees can exacerbate already stressful life events such as traumatic war events and these events can manifest themselves through a mental disease (McDonald 1997).

A study conducted in Sydney, Australia looked at the levels of psychiatric diseases within Lebanese and Egyptian patients released from psychiatric facilities. The study found that amongst Lebanese patients, over 30% were diagnosed with schizophrenia and 30 % with mood disorders. In Egyptian patients, almost 50% of patients suffered from a mood disorders. Despite this number, only 30% of these patients were registered to a community mental health service (Youssef 2006).

The prevalence of mental health problems in this Muslim population is thought to be due to issues surrounding acculturation, shame and difficulty in communicating effectively with practitioners (Youssef 2006). Factors affecting health-seeking behavior in this group include shame and stigma. In addition, Muslims living in a Muslim minority country may seek help from other means aside from professional help. This includes religious leaders, friends and family. A lack of awareness of mental health issues and a denial in suffering from psychiatric diseases may also contribute to this low help seeking behavior. In other Muslim minority countries, workplace discrimination and insults can increase the risk of developing psychiatric disorders (Ciftci 2013). Another factor that may contribute to mental illnesses amongst Muslims is Islamophobia.

Islamophobia and Psychological Distress amongst Muslims

The term Islamophobia entered colloquial parlance in the United Kingdom around the late 1980s to early 1990s. At the time, the term was used to show rejection and discrimination against the Muslim population within the west (Allen 2007). Following 9/11 levels of discrimination against Muslims rose by over 80% and being affiliated with Islam was seen to be a predictor of prejudice. Over 35% of Muslims suffered from mental health problems due to 9/11 and other events such as the 7/7 attacks on London (Sheridan 2006). The media has also played a huge role in perpetuating Islamophobia following terror attacks. Following the 7/7 attacks Muslim Londoners suffered greater stress in comparison to Caucasian Londoners. Muslims were also found to have an increased stress in comparison to other religions (Field 2007).

Mental Health Stigma

Stigma can be defined as a mark of shame leading to a person feeling rejected and excluded from society. A stigmatized individual may possess traits or attributes that are different to their respective norm. Patrick Corrigan (2005) proposed a framework where stigma can be sub-divided into two different types, social and perceived. Social stigma is characterized by prejudicial and discriminating attitudes towards people (Corrigan 2005). An example of a group who face social stigma is patients with HIV-AIDS (Kalichman 2003).

Perceived stigma is where the stigmatized person internalizes their perceptions of discrimination occurring towards themselves (Link 1989). Mental health is a prime example of perceived public stigma. Golberstein found that patients who had concerns about perceived stigma showed a significantly higher level of mental illness (Golberstein 2008). Stigma within the two areas is further broken down in to three elements. These are stereotypes, prejudice and discrimination (Perlick 2001). This is emphasised by Graham Thornicroft and colleagues who found that stigma includes three elements. These are problems of knowledge (Ignorance), attitudes (prejudice) and behaviour (discrimination) (Thornicroft 2007).

Corrigan found that individuals who have more information about mental illness are less stigmatizing than individuals who have been misinformed about mental illness such as through the media and through stereotypes (Corrigan 1999)

It has been suggested that the continued stigmatisation of mental health is a huge variable that stops an individual from seeking treatment and therefore decreases levels of treatment (Phelan 2007). It is common for stigma to be present in an individual's social circle, such as family and friends. Findings show that 46% of adolescents said that they received unwarranted stigma from family members and 35% received stigma from fellow peers and individuals (Moses 2010). The affected person's family can also be stigmatised; having a major impact on their identity and interactions (Li 2009). Family members are often blamed for the effected illness as family members get blamed for the onset and offset of a relative's disorder and the members are more likely to be shunned (Corrigan 2006).

Mental Health Stigma amongst Muslims

Mental health within the Muslim community, be it a Muslim minority or majority country, is still faced with stigma. Al-Adawi and colleagues conducted a study in Oman about perceptions and attitudes towards mental

illness among both medical students and general public. It was found that these groups believed that spirits initiate mental illness and genetics was rejected as a significant aspect. The same study also found results whereby both groups endorsed similar stereotypes about individuals with mental health illnesses and believed that psychiatric services should be segregated from the general public (Al-Adawi 2002). These studies show that there is stigma present within the Muslim domain and this has grave effects on the individuals affected, as they are not seen in a positive light.

The stigma amongst Muslims is also an issue in Muslim minority countries. Tabassum and colleagues examined attitudes towards mental health amongst families of Pakistani origin in the United Kingdom. Results found that none of the participants would consider marrying an individual with a mental illness and only half expressed a desire to socialize with such an individual (Tabassum 2000). This study emphasizes the stigma of mental health illness through attitudes and stereotypes towards these individuals. The stigma in the Muslim community may have an effect on the treatment for people with a psychiatric disease. A study conducted using 35 individuals from the Arab community in Australia found that most participants specified that stigma was the greatest barrier to access mental health services. This was due to the disgrace of revealing personal and family issues to outsiders (Youssef 2006).

Challenging Mental Health stigma

Stigma has a huge effect on individuals utilizing mental health services. Aloud and Rathur conducted a study with Muslim Arab Americans and found elevated levels of self-reported embarrassment when using mental health services (Aloud 2009). However, another study conducted in America found that self-stigma levels among Muslim students did not influence their attitudes towards counseling (Soheilian 2009). These findings may reflect a generational difference amongst the community and also demonstrates that education is crucial to challenging mental health stigma.

Challenging mental health stigma can be done through a religious leader such as an imam. Imams unravel for Muslims how Islam helps and provides in one's healthcare (https://www.intrahealth.org/resources/family-planning-and-reproductive-health)

Abu-Ras conducted a study in America on the Imam's role in promoting mental health. It was found that respondents taking part identified central roles that imams have in promoting healthcare and healthy behaviors through scripture based sermons, advocating for Muslim patients and assisting in healthcare decisions for Muslims (Abu-Ras 2008). This shows the imams leading role in decreasing stigma and creating a positive attitude towards treatment.

Another key aspect that will help challenge mental health stigma is education. Corrigan conducted a meta-analysis from 72 studies and found that strategies that include education about mental illness and contact with individuals who have mental illness reduces the overall levels of stigma towards people with psychiatric diseases (Corrigan 2012).

The Wounded Healer anti-stigma programme

'The Wounded Healer' (TWH) is a contact-based, anti-stigma programme conceived by AH under the supervision of his mentor RZ. TWH has been described as an innovative method of teaching that blends the performing arts with psychiatry. AH is a Royal College of Psychiatrists award-winning doctor with first-hand experience of an 'enduring' mental illness and by being honest, open and proud through the vehicle of TWH he shares his story of recovery. The main aims of TWH are to engage, enthuse, enthral and to educate to debunk myths, challenge stigma and encourage care-seeking (Hankir 2014).

Through the vehicle of TWH, AH provides many examples of accomplished people with mental illness, from famous celebrities and athletes to politicians and healthcare professionals, who are agents of positive change who make important contributions to society. AH raises awareness that psychiatric issues can even be advantageous since healthcare professionals, for example, report becoming more insightful, empathetic and driven because of their mental illness. Psychiatric issues are also known to be associated with creativity and many renowned artists attribute their brilliance to their psychopathology (Hankir 2013).

TWH protests inaccurate portrayals of people with psychopathology and inspires audiences to deconstruct and reformulate their perceptions by debunking myths and educating them with facts. TWH reveals that people with mental illness are peace-loving, law-abiding, responsible and caring human beings and that they can recover, succeed and achieve excellence in what they do. AH is ardently advocates for 'parity' and not 'pity' for people with mental illness (Hankir 2013).

The Federation of Student Islamic Societies programme to challenge mental health stigma in Muslim Communities in the UK: The FOSIS Birmingham study

The Federation of Student Islamic Societies (FOSIS) is a national umbrella organization aimed at supporting and representing Islamic societies at colleges and universities in the United Kingdom (UK) and Ireland. FOSIS was established in 1963 and is one of the oldest Muslim student organizations in the UK.

On the 18th March 2017, a mental health conference entitled 'Remove the label – Mind Over Chatter' was held in the University of Birmingham, England. The 'Mind Over Chatter' conference was a 1-day event comprised of lectures and workshops delivered by experts in mental health and Islam. The event also included the Wounded Healer performance. The main

aim of the conference was to challenge the stigma and misconceptions surrounding mental health issues in the Muslim community.

Our research group at Cambridge conducted the first ever intervention study challenging mental health stigma in Muslim communities in the UK. This pilot project was a single arm, pre-post comparison study. Validated stigma scales on knowledge, attitudes and behavior were administered on participants before and immediately after exposure to the intervention.

Participants

Muslims who attended the FOSIS UK Remove the Label 'Mind Over Chatter' Mental Health Conference were recruited to participate (n=250). The participants completed the forms anonymously and no monetary compensation was offered. Students were in a state of equipoise and verbal informed consent was obtained. Ethical approval for the study was obtained from the Carrick Institute for Graduate Studies, an Institutional Review Board registered with the National Institute of Health for educational, research and clinical trials. We recruited participants and publicized the event by using promotional material that was posted on social media and on the FOSIS and Islamic Societies' websites (see Figure 1).

Figure 1. Promotional material used to recruit participants

Measures

Three measures of stigma and discrimination were used to measure mental health-related knowledge, attitudes and behaviour.

Mental Illness Knowledge Scale (MAKS)

MAKS has been designed to measure mental health-related knowledge among the general public and evaluate anti-stigma interventions (Evans-Lacko 2010). It comprised six items (1-6) on stigma-related mental health knowledge areas and six items (7-12) on the classification of various conditions as mental illness. Participants were asked to indicate whether they agreed or disagreed with the items on a five-point Likert scale.

Reported and Intended Behaviour Scales (RIBS)

RIBS has been designed to measure mental health-related behavioural discrimination among the general public and document behavioural trends (Evans-Lacko 2011). It comprised four items (1-4) which assess the prevalence of behaviour and four items (5-8) which on intended behaviour in the same contexts. Participants were asked to indicate whether they agreed or disagreed with items 5-8 on a five-point Likert scale.

Community Attitudes to the Mentally Ill (CAMI)

CAMI has been designed to measure mental health-related attitudes among the general public. The following three items were used:

- One of the main causes of mental illness is a lack of self-discipline and will-power;
- There is something about people with mental illness that makes it easy to tell them from normal people;
- It is frightening to think of people with mental problems living in residential neighbourhoods.

Participants were asked to indicate whether they agreed or disagreed with the above three statements on a five-point Likert scale.

In addition to this, participants were also asked to complete a short form requesting demographic data and indicate whether they:

- Strongly agreed (5 points)
- Agreed (4 points)
- Neither agreed nor disagreed (3 points)
- Disagreed (2 points)
- Strongly disagreed (1 point)

with the following statements:

1 - "*I feel inspired to raise awareness of the importance of mental health and to take action to challenge stigma*." (ITTA)

2 - *"Stigma in the Muslim community is a barrier to seeking care for mental health problems".* (SBCS)

3 - *"An approach to managing mental health problems that incorporates Islamic teachings would be beneficial for Muslims who are experiencing mental health problems".* (IIT)

Statistical analysis

The total scores for the MAKS, RIBS, CAMI and the statements on feeling inspired to act to challenge stigma, stigma as a barrier to seeking care for Muslims with mental health problems and incorporating Islamic principles for the treatment of mental health problems in Muslims were calculated with higher scores indicating less stigmatizing responses. A paired sample *t*-test was conducted to compare pre-intervention and post-intervention scores. Results were considered significant at $p \leq 0.05$.

Results

Although 250 participants attended the event only 50/250 (20%) of participants completed the pre-post stigma scales. 50/50 (100%) of respondents were Muslim. The occupational/educational background and nationality of each respondent is graphically represented in figures 2 and 3 respectively.

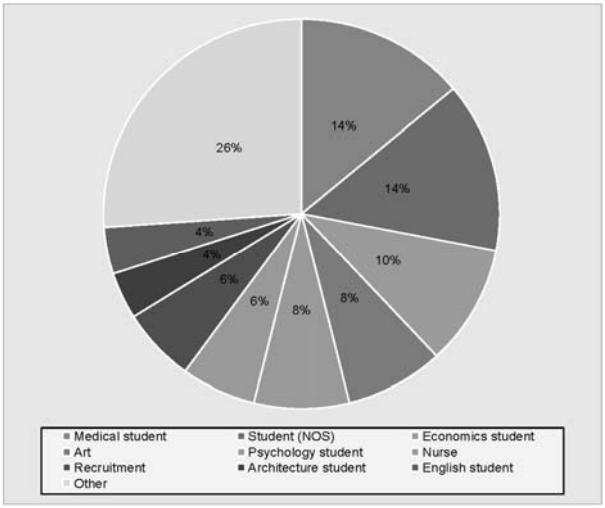

Figure 2. Educational/Occupational background of respondents

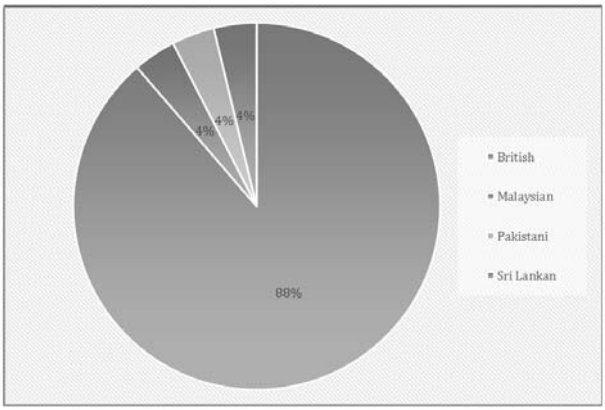

Figure 3. Nationalities of respondents

The mean pre-RIBS score was 18.82 (Std. Dev. 1.75, 95% Conf. Interval 18.32–19.32) and the mean post-RIBS score was 19.50 (Std. Dev. 3.10, 95% Conf. Interval 19.18–19.82). There was a statistically significant difference in the pre-RIBS score compared to the post-RIBS score (p=0.0036) (see figure 4).

The mean pre-MAKS score was 47.86 (Std. Dev. 4.28, 95% Conf. Interval 47.57–49.08) and the mean post-MAKS score was 48.54 (Std. Dev. 3.43, 95% Conf. Interval 47.57–49.51). There was no statistical significant difference in the pre-MAKS score compared to the post-MAKS score (p=0.1320) (see figure 4).

The mean pre-CAMI score was 12.78 (Std. Dev 2.20, 95% Conf. Interval 12.16–13.40) and the mean post-CAMI score was 13.18 (Std. Dev 2.14, 95% Conf. Interval 12.57–13.79). There was no statistically significant difference in the pre-CAMI score compared to the post-CAMI score (p=0.1615) (see figure 4).

The mean pre-ITTA score was 4.46 (Std. Dev 0.54, 95% Conf. Interval 4.31–4.61) and the mean post-ITTA score was 4.68 (Std. Dev 0.51, 95% Conf. Interval 4.53–4.83). There was a statistically significant difference in the pre-ITTA score compared to the post-ITTA score (p=0.0202) (see figure 5).

The mean pre-SBCS score was 1.52 (Std. Dev 0.93, 95% Conf. Interval 1.26–1.78) and the mean post-SBCS score was 1.44 (Std. Dev 0.79, 95% Conf. Interval 1.22–1.66). There was no statistical significant difference in the pre-SBCS score compared to the post-SBCS score (p=0.6220) (see figure 5).

The mean pre-IIT score was 4.30 (Std. Dev 1.04, 95% Conf. Interval 4.01–4.60) and the mean post-IIT score was 4.68 (Std. Dev 0.68, 95% Conf. Interval 4.49–4.87). There was a statistically significant difference in the pre-IIT score compared to the post-IIT score (p=0.0187) (see figure 5).

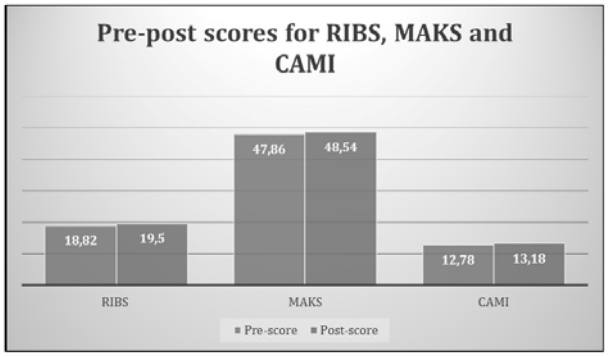

Figure 4. Pre-post scores for RIBS, MAKS and CAMI and ITTA (RIBS- Reported and Intended Behavior Scales, MAKS- Mental Health Knowledge Schedule, CAMI- Community Attitudes to the Mentally Ill).

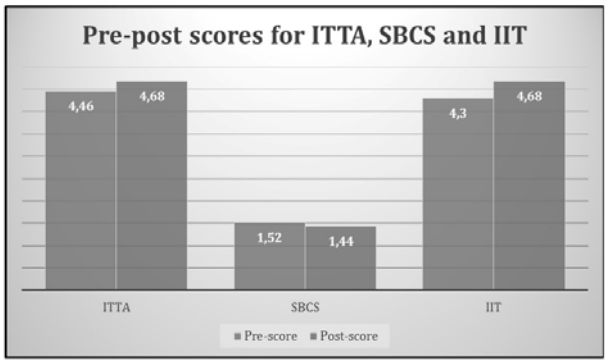

Figure 5. Pre-post scores for ITTA, SBCS and IIT ("*I feel inspired to raise awareness of the importance of mental health and to take action to challenge stigma.*" (ITTA), *"Stigma in the Muslim community is a barrier to seeking care for mental health problems".* (SBCS) *"An approach to managing mental health problems that incorporates Islamic teachings would be beneficial for Muslims who are experiencing mental health problems".* (IIT)).

Discussion

As far as the authors are aware, this was the first ever intervention study on mental health stigma in Muslim communities in the UK published in the literature. With regards to our study, there was a relatively large sample size (n=250) however there was a poor response rate (50/250 20%) even though we printed out

paper questionnaires for participants to complete which, in our experience, usually improves response rates (Hankir et al 2014).

The FOSIS Birmingham study did show that there was a statistically significant reduction in stigma in the domain of reported and intended behavior but not in attitudes towards the mentally ill nor in mental health knowledge. Since the conference contained educational components it was counterintuitive that there was not an improvement in the Mental Health Knowledge Schedule score. It might be that objectively assessing the knowledge with a short quiz at the end of the event might enhance retention, which might correlate with improvements in the MAKS score.

Interestingly, there was a statistically significant increase in the, "*An approach to managing mental health problems that incorporates Islamic teachings would be beneficial for Muslims who are experiencing mental health problems"* score. This indicated that many Muslims may not be aware of the beneficial effects that Islam can have on mental health. Indeed, Ghazala Mir at Leeds University recently pioneered an innovative treatment approach to managing psychological problems in Muslims by incorporating Islamic beliefs into a form of psychological therapy (behavioral activation) which is currently being rolled out across National Health Service Trusts in the UK (Walpole 2013).

The fact that there was a statistically significant increase in the, "*I feel inspired to raise awareness of the importance of mental health and to take action to challenge stigma*" score revealed that the event may be associated with inculcating an 'action over apathy' attitude in participants.

The main limitation of our study was the small sample size and the lack of follow up. Also, the participants who attended the event were 'self-selecting' i.e. they may already have had an interest in mental health and relatively lower levels of stigma compared to Muslims who didn't attend the event (hence there was a selection bias). A larger sample size, a comparison group and a longitudinal design might help to control for such confounding factors. Due to the limitations of our study, our results are not representative, nor generalizable.

Nonetheless, our findings are promising and provide provisional support that Muslim mental health conferences comprised of talks and lectures from experts in Islam and mental health as well as a talk from a Muslim with first-hand experience of psychological distress are associated with reductions in stigma variables in Muslim groups. However, we must interpret the results of our study with caution since there is no evidence to prove that participants will have lower levels of stigma when interacting with people who have mental health problems outside of a controlled setting.

Conclusion

Following the horrific terrorist attack in the Manchester Arena there has been a 500% increase in the number of anti-Muslim hate crimes in the Greater Manchester area. (https://www.theguardian.com/uk-news/2017/jun/22/islamophobic-attacks-manchester-increase-arena-attack)

As enumerated above, Islamophobia is associated with psychological distress in Muslims. We surmise that the rates of mental health problems in Muslims will rise subsequent to the surge in Islamophobic attacks adding to the already enormous burden that mental health problems place on society and the economy.

We must develop innovative ways to challenge mental health stigma in an attempt to reduce the morbidity and mortality that it is associated with. Muslims with mental health problems need to be involved in the design, development and delivery of programs that challenge stigma.

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Conflict of interest: *None to declare.*

Contribution of individual authors:

Ahmed Hankir conceived the idea for the study, contributed to the literature review and revised the manuscript.

Sajjaad Khalil and Qasim Wadood collected the data and organized the study.

Daanyaal Madarbukus and Habibah Arifah Yunus conducted the majority of the literature review for the paper.

Saleena Bibi helped to collect the data.

Frederick R. Carrick obtained ethical approval for the study and revised the manuscript.

Rashid Zaman supervised *Ahmed Hankir*, contributed to the design of the study and revised the manuscript.

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