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**Telemedicine for peer-to-peer psychiatry learning between
UK and Somaliland medical students**

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Telemedicine for peer-to-peer psychiatry learning between UK and Somaliland medical students.

Keywords

Medical Student; Psychiatry; Telemedicine; Education; Peer-to-peer; cross-cultural psychiatry

Abstract

INTRODUCTION: The proportion of UK medical students applying for psychiatry training continues to decline, whilst in Somaliland, there are no public sector psychiatrists. This pilot assessed the utility and feasibility of online instant messenger peer-to-peer exchange for psychiatry education between cultures.

METHODOLOGY: Twenty medical students from King's College London and Hargeisa University met online fortnightly in pairs to discuss pre-arranged psychiatric topics, clinical cases and treatment options, completing online evaluations throughout.

RESULTS: Average ratings of the enjoyment, academic helpfulness and interest of sessions were 4.31, 3.56 and 4.54 out of a maximum 5. 83% would recommend the partnership to a friend.

DISCUSSION: This partnership enabled students on both sides to exploit psychiatry learning resources at the other's disposal, outside the standard medical education context, illustrating the benefits to medical students in dramatically different locations of partnership through telemedicine. This pilot presents an innovative, cost-effective, under-used approach to international medical education.

Introduction

This preliminary pilot study aimed to share knowledge and experiences between medical students in Somaliland and the UK, for psychiatry education and cross-cultural exchange. Here, we assess the utility and feasibility of online instant messenger peer-to-peer exchange for education in psychiatry between cultures. There are no documented reports of psychiatry education of this kind. Given the growing emphasis on global health and the recruitment crisis in psychiatry (1), developing innovative, cost-effective technologies to stimulate medical student interest in this area is of increasing importance to academic psychiatrists and medical educators, worldwide.

Somaliland is a self-declared independent state in the north of Somalia. Its estimated population is 2-3.5 million, with an annual health budget of \$750, 000. There are only two public inpatient psychiatric units in the country and no psychiatrists working in the public sector. (2).

King's Tropical Health and Education Trust Somaliland Partnership (KTSP) works to strengthen the healthcare system and improve access to care through mutual exchange of skills, knowledge and experience between Somaliland and King's College Hospital, UK (3). This includes teaching and examination support from UK psychiatrists to final year medical students in Somaliland, who would not otherwise receive formal training in mental health.

MedicineAfrica is a telemedicine portal based on a social network structure which facilitates online case-based tutorials in real time. It has previously been used for live distance teaching in both Sierra Leone and Somaliland, where partners received reciprocal educational benefit (4). Online peer-to-peer learning, exploiting e-learning technologies, offers students a more diverse medical education and increasing access to medical education resources worldwide (5). A recent literature review found that new medical education technologies for psychiatry teaching are not well-studied and require partnership approaches to integrate them into curricula (6), although telepsychiatry is beneficial in enhancing exposure to isolated patient populations (7).

The logical framework ('logframe') frequently used to evaluate development interventions consists of sub-division into precursors, inputs, processes, outputs, outcomes and impact (8). This study examines the outputs and outcomes of an educational intervention to support peer-to-peer learning, in the context of a larger project of capacity building in the fragile state of Somaliland. This article describes a preliminary pilot exploring whether an intervention solely employing existing resources has scope for wider use and scaling-up in medical education that is mutually, cross-culturally beneficial.

Methods

Ten King's College London (UK) students were paired with ten Hargeisa University Medical School (Somaliland) students through a partnership between KCL Psychiatry Society and KTSP. This was coordinated by an intern in Hargeisa and a medical student in London. All students volunteered to participate in response to email communications and lecture announcements advertising the partnership. The small sample size was determined by low uptake from KCL students but considered sufficient to warrant a preliminary pilot study.

Students were instructed to meet their partner for one hour, every two weeks, using online instant messaging via the website, MedicineAfrica. Students were paired at random, without any criteria, including sex, since female students did not object to having male partners. Each pair aimed to meet eight times, to discuss psychiatric topics. Students received a set of eight suggested themes for discussion including cultural perspectives and stigma, affective disorders, substance misuse and psychosis.

Students completed an initial questionnaire prior to the partnership, a short survey after each one hour meeting and a final evaluation questionnaire about the experience (see Appendices). Three Likert-scale questions were asked, the remainder being qualitative. As a pilot study, this was considered most appropriate to explore participants' views and experiences, and to determine what aspects of the partnership needed improvement.

Consent to completion of anonymised questionnaires for use in evaluation and research and full anonymising of clinical cases were explicit features of the Terms of Reference which all students signed before beginning. All questionnaire responses were fully anonymous. Part of the KTSP MedicineAfrica evaluation, ethical approval came from KCL Ethics Committee and permission was granted by the Somaliland Medical Association and Ministry of Health.

Results

Seven male and three female KCL students and five male and five female Hargeisa University students participated, with mean age 25 years. Of 18 initial questionnaires, 44% were sixth year students, 17% fifth years, 22% fourth years, 11% third years and 6% second years. All Somaliland students had received psychiatry training from KTSP, to ensure comparable levels of prior knowledge of psychiatry with UK students. Students hoped to learn about the other country's culture, history, people, medical models, psychopathology and treatment. One UK student said:

"I hope to gain a wider knowledge of psychiatry - seeing it only from a Western perspective is very blinkered."

Thirty-six questionnaires were completed after meetings, with 64% by KCL students (23) and 36% by Hargeisa students (13); one did not indicate their. The average duration of each meeting was 68 minutes. One pair did not successfully meet. Of the remainder, 4.7 meetings were completed on average, indicating that 57% meetings were reported by questionnaire.

Grouping self-reported learning points under common themes, 61% respondents reported learning the similarities and differences between psychiatry in the two countries, including social, religious and cultural attitudes and stigma. 44% learned more about depression, PTSD and anxiety disorders. 39% learned about pharmacotherapy and 33% learned about alternative cultural and religious explanations for psychiatric illness, about herbal, healing and Qur'anic therapies. 33% learned about khat, cannabis and other drugs of abuse and their effects on society, families and health. 28% learned about the

financial challenges of public healthcare, the impact of the civil war and the rise of private healthcare in both countries. A common theme was how similarly psychiatric illnesses present in both countries.

Table 1 summarises students' post-meeting evaluation responses. When asked, "On a scale from 1 to 5, how much did you enjoy today's session?" the average rating was 4.31, with 58% giving the maximum score of 5. When asked "On a scale from 1 to 5, how much did you find this session academically helpful?" the average rating was 3.56, with 39% giving the maximum score of 5. When asked "On a scale from 1 to 5, how interesting did you find today's session?" the average rating was 4.54, with 71% giving the maximum score of 5. 83% of respondents would recommend the partnership to a friend. 57% of respondents thought they would keep in touch with their partner.

In final evaluation of their experience, nine KCL students out of ten who started and only three Hargeisa University students out of eight who started completed questionnaires. All responding students agreed that the topic themes provided were useful in helping them to structure their meetings and 72% followed them explicitly, though others found them too rigid.

Those who met regularly felt they gained from the partnership. One KCL student commented:

"I gained an understanding of the differences in the way that society views mental illness in Somaliland and in the UK. I also learnt a lot about mental health issues that are less common in the UK (e.g. Khat abuse), and the inter-relationship between religion and mental health care provision in Somaliland. I had seen... ECT, which my partner was not familiar with, and so I could share what I had been taught during my psych rotation and vice versa... I learnt a lot from her."

Only a small number of student pairs completed the full eight meetings. Participants who did not complete the full programme identified problems, which included:

- Internet connection difficulties
- Travelling to access a computer.
- Participants not being committed at the outset and lacking motivation.
- Misunderstanding of how the partnership works through MedicineAfrica.

Logistical problems limiting full completion were the biggest challenge to successful partnership. Time delays caused by slow internet connections prompted one student to suggest a blog as an alternative format, whilst other participants relished the personal and immediate instant messenger format. In only one case was the language barrier considered to be a problem.

Students stated that there was a clear benefit to using MedicineAfrica, a bespoke tool for online clinical communication, rather than using existing communication formats such as email or videoconferencing.

Whilst students liked being able to read what others had discussed, because the website made meetings openly visible online, many were unhappy that conversations were not private. For future cohorts, the option to make a conversation invisible to other users of the site was added, to preserve confidentiality.

Discussion

This preliminary pilot explored the value and feasibility of pairing medical students in Somaliland and the UK for online telemedicine peer-to-peer psychiatry learning. Post-meeting and evaluation questionnaires revealed that the partnership enabled medical students to consolidate their curricular psychiatry teaching and enhance their knowledge of medicine in a differently resourced environment. Students learned about perceptions of psychiatric illness in a different culture and shared their experiences of patients. High ratings of interest and moderate enjoyment and academic helpfulness were given in spite of logistical problems. Medical students' high computer literacy led to clear suggestions to improve the MedicineAfrica website, based on knowledge of other online communication fora.

Challenges included low uptake of the partnership by KCL students and low questionnaire completion by Somaliland student, a significant limitation rectified in future cohorts, as the final evaluation is biased in favour of KCL students' experiences and prevents direct comparison between student groups.

It highlights the need to better explain and reiterate the importance of completion of all questionnaires to all students at the outset and throughout.

The proportion of UK medical students applying for speciality training in psychiatry continues to decline, whilst in Somaliland, there are no psychiatrists working in the public sector. This partnership stimulated interest in psychiatry by encouraging medical students to think about psychiatry outside the standard medical education environment, making use of a unique telemedicine learning format.

While the small sample size, qualitative questionnaires and imbalanced response rates prevent these findings being generalised, they provided a positive pilot upon which to build a more rigorously implemented and evaluated partnership. In 2011, this was undertaken with a larger cohort, whose results are currently being evaluated. Lessons learned from this pilot include the importance of regularly encouraging participants to complete questionnaires, to maximise evaluation and audit of e-learning and ensure balanced feedback is collected from both countries.

This partnership illustrates the potential benefits to medical students in dramatically different locations of peer-to-peer learning through telemedicine. It presents an innovative, extremely cost-effective and under-used approach to medical education. This project expands the scope of the KTSP health link beyond qualified clinicians, to the medical professionals of the future.

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Appendices

Appendix 1: Hargeisa-KCL Psychiatry Partnership Starting Questionnaire

1. Which university do you study at?

Hargeisa University

King's College London

2. How old are you?

3. Which year of Medicine are you currently in?

Which year of Medicine are you currently in?
First year

Second year

Third year (including BSc)

Fourth year

Fifth year

Sixth year

4. If you have studied a previous degree before Medicine, please state which subject you studied before.

5. What do you know about medicine in Somaliland (if you are a KCL student) or in the United Kingdom (if you are a Hargeisa student)?

If you are unsure, please guess

6. What is your opinion of psychiatry?

7. What do you know about psychiatry in Somaliland (if you are a KCL student) or in the United Kingdom (if you are a Hargeisa student)?

What forms of treatment are used?

What are the most common psychiatric diagnoses?

How do patients present for treatment?

What are the most common substances of misuse?

If you are unsure, please guess.

8. What are the common myths and misconceptions about mental health in your country?

If you are a student at Hargeisa University, what can you say about post-conflict Somaliland and the current state of mental health?

9. What do you hope to gain from this partnership?

10. Would you consider a career in psychiatry? Why?

Appendix 2: Hargeisa-KCL Psychiatry Partnership: After-Meeting short Questionnaire

1. Which university are you a student of?

- King's College London
- Hargeisa University

2. On what date did this meeting take place?
How long did your meeting last?

Date (dd/mm/yy)

Time of duration in
hours and minutes

3. Which meeting was this? I.e. first, second, third etc.

4. Please name 3 things you and your partner discussed today.

Subject 1

Subject 2

Subject 3

5. Please name 3 things you learned today

Learned 1

Learned 2

Learned 3

6. On a scale from 1 to 5, how much did you enjoy today's session?

	Did not enjoy at all		Enjoyed somewhat		Enjoyed very much
Session enjoyment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. On a scale from 1 to 5, how much did you find this session academically helpful?

	Not at all academically helpful		Somewhat academically helpful		Extremely academically helpful
Session helpfulness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. On a scale from 1 to 5, how interesting did you find today's session?

	Not at all interesting		Somewhat interesting		Extremely interesting
Session interest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. Please state one thing you would improve for next time.

10. What was your experience of the MedicineAfrica website like?

Website easy to use?

Easy to set up your

meeting?

Website fast or
slow?

Website useful?

Website user
friendly?

Any changes to the
website you can
suggest?

Appendix 3: Hargeisa-KCL Partnership Evaluation Survey

1. How many times did you successfully meet with your partner for a session on MedicineAfrica?

2. What were the main things which you and your partner discussed in the meetings you had?

3. Please comment on whether you used the Topics we provided as a framework for your meetings.

Were they useful? What improvements should we make to the topics?

4. Please tell us what was great about this partnership.

What did you gain, what did you learn, what could you offer your partner?

5. Some students were unable to meet their partner for all the scheduled sessions. If this happened to you, please tell us what the problems were.

What do we need to change to overcome this type of problem when we start this partnership again in future?

6. Did the MedicineAfrica forum work as an appropriate medium for your meetings?

Is there anything we can change to make it more user friendly?

Should we be using the site in a different way to make the most of the partnership?

7. Would you recommend the partnership to a friend?

Yes No

8. If no, why not?

If you have any other feedback about the partnership - what worked well, what needs to be improved and your ideas, please write them here.

Will you be keeping in touch with your partner in future?

9. Please indicate your university

Hargeisa University King's College London

10. Please state your age and your year of study.

Table 1: Summary of post-meeting evaluation responses

	Not at all (1)	(2)	Somewhat (3)	(4)	Very much (5)	Rating Average
On a scale from 1 to 5, how much did you enjoy today's session?	0.00% (0)	2.8% (1)	22.2% (8)	16.7% (6)	58.3% (21)	4.31/5 n=36
On a scale from 1 to 5, how much did you find this session academically helpful?	13.9% (5)	8.3% (3)	25.0% (9)	13.9% (5)	38.9% (14)	3.56/5 n=36
On a scale from 1 to 5, how interesting did you find today's session?	0.00% (0)	2.9% (1)	11.4% (4)	14.3% (5)	71.4% (25)	4.54/5 n=35

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