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Use of Body-Mapping (An Art Therapy Methodology) to Enhance Medical Student History Taking Skills and the Students Response

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Abstract

Medical school educators are tasked with the responsibility of teaching medical students how to take relevant medical histories from patients and develop communication and interpersonal skills. In this ethically approved undergraduate medical teaching programme, the authors used body-maps to extend and expand the traditional history taking skills taught to medical students. This paper details the body-map methodology and the enthusiastic feedback from the medical students. In addition to the enhancement of their history taking skills, the students reported how improved self-awareness and self-reflection from the body-map programme gave them the confidence to develop empathic relationships with one another and their patients.

Keywords: body-mapping in medical student education, art therapy to enhance medical history taking in medical students, group art psychotherapy with medical students

1. Introduction

In the first clinical year medical students at University College London Medical School are attached to a primary care setting for 9 days in a programme called ‘Medicine in the Community’ (MIC). During the 2017-18 academic year, 24 (non selected) medical students were attached to the co-author’s North London general practice clinic. Here they experienced 90 minutes per day of experiential art psychotherapy, in addition to the traditional MIC programme. This was achieved by extending the length of the day to ensure the students did not miss out on the traditional experience of practicing their clinical skills, seeing primary care patients, and receiving tutorials on clinical issues from a primary care perspective.

The art psychotherapy sessions utilised the process of body-mapping with a psycho- educational emphasis. The objective was to help the students develop an awareness of themselves, their strengths, fears and vulnerabilities so allowing them to approach patients with greater confidence, curiosity and empathy. Traditional history taking of patients was mirrored in the student’s autobiographical history taking, using a wide range of art materials, personal photos, cut out pictures, textiles and text-based source material for their body-maps. The sessions were structured in a way that fostered a safe-enough space for the students to explore their own past and current experiences, mirroring the processes employed when they take patients histories (Hopper, 2003). Furthermore, it allowed the students “to express their feelings and promoted reflections about the present, past, and glimpses into the future” (de Souza et al, p.1, 2021).

Another core component of the body-mapping process was to help the students develop a working knowledge of psycho-social and contextual components impacting their lives and the lives of their patients mental and physical health. We encouraged students to consider their patients socio-economic background and explore any past or present trauma and the impact of trauma on the body and psyche (Van der Kolk, 2006, 2015).

The empathic and non-judgmental qualities of the co-facilitators, interwoven with modalities of medicine and art

psychotherapy, provided an enriched context for learning and teaching. In each of the 9 sessions, there were psychoeducational seminars offering student's insight into the body-mapping process covering topics of trust, confidentiality, consent, boundaries, respect, rights, resilience, empathy, mindfulness, safer spaces, listening and communication. At the end of the academic year the students were invited to talk about their body-maps and give feedback on the whole process.

2. What Is Body-Mapping?

A body-map begins with a life size outline of the body on a large sheet of paper. When introducing body-mapping it is important to alert participants to the sensitivity of the process. The person being traced should have as much autonomy and control as possible. The person tracing should invite their partner to choose what material they would want to be traced in. Different materials elicit different potential processes. For example, one may choose to work with charcoal for a less permanent mark that can be rubbed out or pencil for a light trace of self. It may be a thick black outline stating 'this is me', alternatively it may be a colour one particularly likes. The body position on the paper is important in determining choice. Certain positions may be more comfortable including arms outstretched, a foetal position, standing or sitting while being traced. The process requires intimate proximity therefore trust in the person tracing is fundamental. One needs to be sensitive when tracing near intimate areas, aware that past histories of inappropriate bodily violations may be at play. It is important to talk to the person while being traced ensuring they remain comfortable and know they have the choice to stop at any point. Distortion occurs when tracing, and this is important to bring to consciousness, inviting the person being traced and the tracer not to become attached to the outcome and to feel free to moderate the map and reclaim the outline as their own.

3. Theoretical Framework

The co-author art psychotherapist, has had extensive experience working with body-mapping since 1992 in contexts of political violence with child soldiers (Smith, 2000), educators, community workers, as well as within a sexual and reproductive health programme exploring young women's perceptions of HIV and intergenerational gender- based violence in South Africa (Lince-Deroche et al, 2018).

The body-map becomes a symbolic self-portrait that enables one to engage with the constantly transforming 'thing called self' (Bollas, 1995) and visually reflects a systemic view of the self in relation to social, political and economic processes. Body-mapping is a visual matrix of the inter-relationship between body-mind, inner and outer world, self and other (Berman, 2016; Botha, 2017; Gastaldo et al, 2012, 2018, Elbrecht, 2018). It has the potential to connect time and space and internal and external worlds in people's lives that otherwise may be seen as separate or split off. The outside of the body tracing can be used symbolically to explore the interface between our identity as it intersects with our families, communities, societies, and environment.

As practitioners, we are the vehicle we take into our work and our worlds. This work is reliant on our capacity to deepen our self-awareness and self-growth as a prerequisite in promoting that capacity in others. Self-reflection is essential for facilitators to experience before working with others. The depth to which facilitators can go personally determines the depth with which they can go with others they work with. It is an evocative process that demands educators and teachers are trained and supported to contain the emotional potential of what may emerge (Berman, 2016).

Body-mapping has the potential to facilitate understanding of both the psychodynamic and social environment that may either encourage or challenge capacities for resilience and empathy. Image making promotes the capacity to make internal anxieties and tensions visible externally, offering opportunities to symbolise, express and contain (Kalmanowitz, 2016). This enables a deeper understanding of the self in relation to others.

4. Method

4.1 The Process

The 24 students from University College London Medical School were attached in three groups of eight students for 9 days in their first clinical year to a north London primary care setting. The students spent the day conventionally seeing patients & having tutorials, but then experienced a final 90minutes of practical art making and psychodynamic theory at the end of the day.

Both facilitators (authors) worked alongside the students and created their own Body-maps in the spirit of co-creation and democratizing learning and teaching.

Each session began with brief workshops introducing a bio-psychosocial model and the students were given assignments for the following session.

Session 1- Students were introduced to the importance of creating a safe enough space, building trust,

confidentiality, respect, and boundaries. Students were asked to choose a piece of fabric from a collection, that resonated with them as a way of introducing themselves. These pieces were later incorporated into their body maps. The 'homework' task to be discussed at the next session, was to reflect on an observation on the hospital wards, practice active listening and observing both externally (context) and internally (emotion), 'what do I see and how does that make me feel'

Session 2-. Students chose a postcard from a collection that they shared with one another as a way of further introducing themselves. This process fostered relationship building within the group, reflective and active listening skills and modelling an ethics of care. Students were introduced to the process of containment (Bion, 1970) and holding (Winnicott, 1976). The task set for the next session was to consider hospital ward observation with specific attention to the relationship between the patients' psyche (mind) and soma (body).

Session 3- Students were encouraged to share experiences and perceptions about psychosocial factors impacting notions of stigma, unconscious bias and diagnoses as complex phenomena. This offered a way of introducing the psychoanalytic concepts of projection and projective identification. The task for the following session was to reflect on how to encourage patients to be curious about their symptomatology and overcome pre-conceived ideas about the stigma of their condition.

Session 4- Students were re-introduced to the process of collecting histories of their patients. Modelling a therapeutic process, the students were asked to reflect on their own beginnings. They were encouraged to consider pre-conception, intergenerational histories, and broader notions of 'where I began'. Links were made to the importance of understanding the narrative of the patient's illness and history ensuring a biopsychosocial sensibility to ensure optimal care, alongside a deep understanding of the self as practitioner. The outlines of the body maps were done in this session, with careful consideration of methodology emphasizing the safety and boundaries described earlier in this paper.

Sessions 5- 8 were primarily taken up with students actively working on their Body Maps.

Students were encouraged to bring a collection of fragments of their lives to include in their body maps, this included old and current photographs (photocopies if they were precious), cuttings from newspapers, magazines, poems, bits of text, old letters, wrapping paper, fabric as well and the use of their initial fabric and postcards in the earlier sessions. Students were tasked to reflect on ward based history taking and considering links between patient's biographies, contexts and illness.

Time was allocated to meet as a group each session to discuss the process and feelings evoked. Theoretical concepts were woven into the discussions and covered an introduction to transference and countertransference, self and other. The students were tasked with reflecting on ward interactions with patients with a focus on transference and countertransference. The kinds of questions they would wonder about included, 'who am I for the patient?' 'Who do they remind me of?' and 'what kind of response am I prone to'? Understanding their own relationship between psyche and soma allowed them to understand what may be going on for the patient. Other areas covered included patient's rights, personal resources like resilience (how we manage loss/ failure) and self-care and personal development to prevent burnout (Tjasink & Soosaipillai, 2019).

Their journey constructing their body maps allowed the students to consider themselves in relation to others, their family origins, cultural heritage, broader community engagement and global identity. This process modelled a way of seeing their patients in context and their relations to others.

In preparation for the final session after students had completed their body-maps, they were invited to bring a piece of music that best represented themselves. This elaborated the initial sessions of using a multisensorial approach to coming to know oneself in relation to others. Each student had ten minutes to share their Body-mapping process and end product and to play their piece of music. While they did this the rest of the group engaged in an active visual listening process and gave visual feedback to one another. This process reinforced their active listening skills. The feedback to one another was in the form of an image that became a personal gift of recognition and acknowledging the value of the shared group experience.

The sessions were structured within a therapeutic framework with careful consideration of a beginning, middle and end. The ending session was an opportunity to consolidate their learning and practice within the group, sharing their body-maps, and offering reflections in a mindful way holding the values and thinking of their learning.

4.2 The Student Quantitative Feedback Questionnaire

At the end of the academic year, the students completed an anonymous questionnaire of 7 quantitative and 2 qualitative questions. The quantitative questions were scored on a 7- point Likert scale from 1 (strongly disagree) to 7 (strongly agree).

The quantitative questions were as follows.

Q1) The body-map artwork helped me think about my personal history and identity.

Q2) Tracking my own history enhanced my empathy when exploring patient's histories.

Q3) The body-map artwork helped me think about what I value and who is important to me.

Q4) The body-map artwork helped me recognise my inner creativity.

Q5) This artwork made me more self-assured and confident about who I am and what I value.

Q6) This process has made me more curious about patient's stories and feeling.

Q7) The art making group experience created deeper bonds and common purpose with my peers.

4.3 The Students Qualitative Feedback Questionnaire

The two qualitative questions were

A) To what degree do you feel your developing creativity has enhanced your capacity for resilience and problem solving?

B) Has the process encouraged you to notice psychosomatic and emotional symptoms in your patients?

5. Results

23 of the original 24 students (one student was ill for the final evaluation) completed the questionnaire and generally rated the experience positively. Means and 95% confidence intervals (CI) have been calculated for each of the 7 quantitative questions on a 7-point Likert scale from 1 (strongly disagree) to 7 (strongly agree). Also shown in the results are medians (the mid-point of the data) and the interquartile range (from 25% of the data to 75% of the way through).

Means and 95% confidence intervals for each feedback question.

	Mean, 95% CI	Median, Inter-Quartile Range
Q1 (enhanced my identity)	5.48 (4.93, 6.03)	6.00 [5.00, 6.50]
Q2 (Enhanced my empathy)	3.91 (3.24, 4.59)	4.00 [3.00, 5.00]
Q3 (helped my sense of value)	5.17 (4.55, 5.79)	5.00 [4.00, 6.50]
Q4 (helped me recognise creativity)	5.09 (4.46, 5.71)	6.00 [4.00, 6.00]
Q5 (increased my self-assurance)	4.91 (4.29, 5.54)	5.00 [4.00, 6.00]
Q6 (Made me more curious of pts)	4.39 (3.68, 5.10)	4.00 [3.00, 6.00]
Q7 (increased my bonds with peers)	5.04 (4.36, 5.73)	5.00 [4.00, 6.00]

The students response to the first of the two qualitative questions asking to what degree their developing creativity had enhanced their resilience and problem solving was broadly divided into 3 groups. The largest group of 12 felt that it had enhanced resilience, followed by a group of 6 who were unsure and a smaller group of 5 who felt that it

had not.

The positive comments included

"[*Body-mapping] developed my creativity and helped me think more laterally*";

"*It increased my self-awareness and helped with my resilience*";

"*It helped me relate more to patients*";

"*Thinking about who I am contributed to developing a sense of self and security*";

"*It had a huge impact on my problem solving*";

"*It helped give me a better understanding of myself and my attributes which helped enhance my resilience and thinking about who was close to me and made me realise how good my support network is*";

"*Body-mapping helped me explore who I am and I feel this has increased my stability and empowered me to be myself and hold on to my values and views, allowing me to stay true to myself making me more resilient*";

"*It helped me find out who I am and what is important to me and all medical student should do this (if only for themselves)*";

"*The Body-maps allowed me to explore myself in a way I've never done before, gave me time for myself that we don't give ourselves and made me realise I should value myself more*";

"*It was useful in allowing me to approach problems from different perspectives and think more laterally*";

"Uncovering what I am made of, has given me a better appreciation of what I can fall back on";

"*It helped me to remain a big picture thinker when dealing with the whole patient*".

The second of the qualitative questions asking whether the process had encouraged the students to notice psychosomatic and emotional symptoms in their patients again fell into 3 groups. 11 students felt that it had encouraged them to notice psychosomatic and emotional symptoms, 4 were unsure and 8 felt that it hadn't.

Positive comments included

"*Body-mapping helped me relate to patients*";

"*It greatly contributed to my engaging with psychosomatic/emotional symptoms in patients*";

"*It helped me imagine what a patient's body map might look like and helped me empathise more with their emotions and circumstances*";

"*Body-mapping enhanced my ability to know that every patient has a huge inner story, emotions, feelings and experiences and inspired me to be more aware of this and explore the patient's own stories and emotions*";

"*It allowed me to focus on psychosomatic issues in my patient history taking*";

"*It made me think more about how a disease might impact a patient's self-identity and even though doctors make assessments of patients, the patients have usually made their own self assessments*";

"*Body-mapping brought patients psychosomatic issues more to my awareness*".

6. Discussion

It has elsewhere been noted that no matter how useful or important a learning process is to the students development, unless the student's themselves perceive the programme to be valuable and relevant, they will not derive maximum educational potential from the experience (Schamroth, 2018). In this body-map programme, the overwhelming response of the students was positive. They felt strongly that the body map workshops had increased their sense of identity (mean 5.48 out of 7), sense of value (mean 5.17), recognition of inner creativity (mean 5.09), created deeper bonds with peers (mean 5.04) and increased their self-confidence and assurance (mean 4.91). The students also felt that the programme had improved their curiosity towards patients (mean 4.39) and enhanced their empathy (mean 3.91).

When responding to the qualitative question whether their creativity had enhanced their resilience, 12 (52%) identified a definite link, 5 (22%) felt no link and the rest were undecided. With regards the second qualitative question about body-maps encouraging them to notice psychosomatic and emotional illness in patients, 11 (48%) identified a definitive link, 8 (35%) didn't and the 4 (17%) were undecided.

The students response as to whether they felt the process of Body-mapping enhanced self-development and fostered empathic engagement within the context of a group was generally encouraging. It was hoped the students would be able to take this insight, knowledge and skill forward to become even more holistic and enlightened

relational doctors.

7. Conclusion

Teaching medical humanities through art to medical students is not new and has elsewhere been justified as a means of developing empathy and resilience (Schamroth and Berman, 2020). What has not previously been tried is using the structure of an art psychotherapy group to enable first year clinical medical students to enhance their history taking skills and bio-psychosocial perspective.

Interpretation of this study was limited by both the small cohort size (24) and the absence of a longitudinal study to determine the impact of this process on the student's development as doctors and the potential of their applied learning. Nevertheless, the qualitative and quantitative feedback at the end of the year, strongly indicates that the students rated the experience highly for its value as an enjoyable and creative educational tool and an effective personal and clinical skills development methodology. While we have shared the student's voices of the value of Body-mapping, we have not done so with their visual images or personal reflections of their Body-maps. The co-facilitators were acutely aware of the fear students had, of exposing their vulnerability to their wider peers and to the medical school establishment.

The Body-map process aimed to achieve 3 educational outcomes. Firstly, to have the students think about themselves and their personal histories, identity, values, and important others (family, friends, teachers, role models) before seeing patients. Secondly, to develop their self-assurance, creativity and curiosity about patient's stories and feelings and relationships with colleagues in the group. Finally, to encourage the application of this self-awareness, self-confidence, and curiosity into creating greater empathy towards patient and increased awareness of psychosomatic and emotional symptoms in patients. The students feedback indicates that for many of the students, all three educational objectives have been achieved.

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Ethics Approval

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