Drawn Together: a Curriculum for Art as a Tool in Training

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Historically, the arts and humanities were closely intertwined with medical practice, diverging over the last century as medicine viewed the humanities discordant with evidence-based medicine. The importance of the arts and humanities in medicine has recently been rediscovered and gained momentum, with increased integration of the arts into training curricula [1]. Recognition of the ways art can facilitate medical trainee learning is evident in the Association of American Medical Colleges' initiative to integrate arts and humanities throughout medical education [2, 3]. The Accreditation Council for Graduate Medical Education delineates milestones for psychiatric residency training for which art education tools could be beneficial. Art education has the potential to help trainees learn the value of the clinician's emotional response in the psychiatric evaluation (PCI), assist in self-reflection to allow for management of emotional content from difficult therapy sessions (PC4), and promote curiosity and openness to different points of view (PROF1) [4]. This article discusses simple methods of integrating the arts into psychiatric residency education, in order to facilitate reflection and provide tools for potential applications to patient care.

Adoption of arts and humanities programs into medical education has demonstrated improvement in students' clinical observation and diagnostic skills as well as interpersonal and communication abilities [2]. Furthermore, the use of art-based education tools provides a unique frame to engage learners through a focus on self-discovery and tolerating the discomfort of unfamiliar topics in a safe space [2, 5, 6]. Art-based tools have been shown to foster resiliency and mitigate burn-out [7, 8]. In certain studied patient populations, using these tools has resulted in improved quality of life [9].

As such, art-based education tools have an increasing role in psychiatric residency training. Having more specific knowledge and hands-on experience of these activities may strengthen trainees' ability to engage with patients, express curiosity, and support patients in different ways [3]. Psychiatry residencies have initiated book clubs and psychiatry in cinema events, encouraged mentored writing about artwork, and used popular television shows to teach residents [10–12]. These activities provide a forum for peer support, togetherness, and collaboration, as well as possible benefits from engaging in these art-based activities while learning about them. Further, with the current physical distancing guidelines due to the coronavirus disease 2019 (COVID-19) pandemic, art-based sessions may allow for increased social connectedness.

In this educational case report, we describe an art-based education curriculum within a psychiatry residency program, which in its second implementation transitioned into a virtual format amidst the COVID-19 pandemic. The explicit goals of the curriculum were to develop specific clinical skills, self-awareness, and perspective taking, and to improve resident wellness by providing a safe and collaborative space for increased peer communication and shared vulnerability. It was specifically designed so any interested educator could facilitate these sessions without additional training. Here we describe the curriculum in its first in-person iteration, as well as the second iteration and how it was redesigned for a virtual format.

Art-Based Education Tools in a Residency Curriculum

This curriculum comprised eight-sessions incorporating art-based education tools and activities to teach skills to trainees applicable to their clinical work and to encourage supportive discussions about residents' challenging experiences (Table 1). Each session, the facilitator presented the activity and provided necessary materials. Residents spent the first half of the sessions engaging in an activity and the second half sharing their experiences of the activity and discussing

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Table 1 Art based education sessions

Topic/Activity	Recommended Materials	Instructions	Virtual Adaptations	Curricular Goals	Related Readings
Introduction	None	Provide introduction to art-based education curriculum and overview of the curriculum	Can proceed as in person.	Self-awareness Perspective taking Resident wellness	Haidet et al., “A guiding framework to maximize the power of the arts in medical education: a systematic review and metasynthesis” [3]
“Draw a Person in the Rain”	Paper, pencils	State, “Draw a person in the rain.” Provide 20 min for this activity, then ask participants to discuss experience/show artwork if comfortable, then present rationale for activity as per article [9]	Can proceed as in person.	Clinical skills Self-awareness Perspective taking	Willis et al., “Draw-a-person-in-the-rain as an assessment of stress and coping resources” [13]
Box Making	Cardboard boxes (small mailing boxes, shoeboxes, or small craft boxes), old magazines, scissors, glue sticks, pencils, markers, crayons, oil pastels	Describe boxes as metaphors for protecting, concealing, demonstrating opposites, tools for remembrance, or depictions of the self as per article [10]. Present supplies, ask participants to, decorate outside and inside of boxes, stating they will not be required to show the interiors. Provide option of presenting exterior and/or interior of boxes to peers and discuss experience as a group.	Send email alerting participants to activity a week prior, ask them to collect any of the materials they are able to have with them during session. For those unable to obtain cardboard box, can create folded paper box.	Clinical skills Self-awareness Resident wellness	Farrell-Kirk, “Secrets, symbols, synthesis, and safety: the role of boxes in art therapy” [14]
Processing Difficult Clinical Interactions Through Art	Paper, pencils, crayons, colored pencils, markers, oil pastels	Ask participants to create a piece of artwork inspired somehow by a recent difficult clinical interaction, specifying that it does not need to be a literal representation of that moment. After 20 min, provide option to share images if comfortable and process the experience as a group.	Can proceed as in person.	Self-awareness Perspective taking Resident wellness	Malchiodi. The Art Therapy Sourcebook [17]
Collaborative Drawing	In person: paper, pencils, crayons, colored pencils, markers, oil pastels Virtual: digital whiteboard	Provide supplies and ask each person to start a drawing. After 4 min, everyone passes their project to the person next to them. After approximately 6 exchanges (depending on number of participants and time), return to original artist. Discuss the final result and process of contributing to each other's pieces as a group.	Using a virtual platform, facilitator shares his/her device's screen utilizing the whiteboard feature. A prompt (e.g. “draw something scary”) is given and all participants draw simultaneously on the white board. After 5 min, pause to discuss what has been drawn and provide next prompt (e.g. “draw something warm/sad/hopeful”). Repeat several times throughout session.	Clinical skills Self-awareness Perspective taking Resident wellness	Lyon et al., “An exploratory study of the potential learning benefits for medical students in collaborative drawing: creativity, reflection and ‘critical looking’” [18]

Table 1 (continued)

Topic/Activity	Recommended Materials	Instructions	Virtual Adaptations	Curricular Goals	Related Readings
Bumout, Coping, and Coloring	Coloring book pages found online, pencils, crayons, colored pencils, markers, oil pastels	Provide art supplies and coloring book pages with sarcastic statements/images (found through online search). While coloring, engage participants in discussion about bumout and ways participants have found to manage this	Email coloring book pages to participants in advance to be printed or to color on electronic devices during the session.	Self-awareness Resident wellness	Mantzios et al., “When Did Coloring Books Become Mindful? Exploring the Effectiveness of a Novel Method of Mindfulness-Guided Instructions for Coloring Books to Increase Mindfulness and Decrease Anxiety” [19]
Bridge Drawing	Paper, pencils, crayons, colored pencils, markers, oil pastels	State, “draw a bridge going from some place to some place.” Provide 15 min for participants to draw, then ask them to indicate with an arrow the direction of travel and place a dot to indicate where artist is in the picture. Discuss the articles and concept of the bridge as metaphor for current life struggles and successes.	Can proceed as in person.	Clinical skills Self-awareness Resident wellness	Hays et al., “The Bridge Drawing: A Projective Technique for Assessment in Art Therapy” [15] Darewych, “The Bridge Drawing with Path Art-Based Assessment: Measuring Meaningful Life Pathways in Higher Education Students” [16]
Shared Comic Creation	Paper with four squares on it, pre-written list of prompts with varying emotional valence (e.g. “my pager is going off” “we are all out of ice cream”), pencils, crayons, colored pencils, markers, oil pastels Virtual: digital whiteboard	Provide art supplies, a paper with a 2 × 2 grid of squares, and prompts. Ask participants to pick a prompt sentence and then draw the first image of a comic in the first square. Then pass the paper to another person three times in order to complete the comic. Discuss the process as a group.	Draw 2 × 2 grid on virtual white board and have participants take turns filling in boxes.	Perspective taking Resident wellness	McCreight, “Creating Comics with Clients” [20]

potential applications to clinical practice. These activities enabled residents to process the trainee experience, with the art activities facilitating the sharing of vulnerability. Relevant articles to the activities were emailed to trainees after the sessions for future use (Table 1).

In one session, residents were given the prompt, “draw a person in the rain.” After completing the activity, the research behind this projective assessment was explained, including how components of the completed artwork correlate with validated measures of stress and perceived coping resources (e.g., presence/absence of rain apparel, intensity of rain in the drawing) [13]. Residents could then share their artwork with each other and discussed their reactions to this experience and ways they could use this tool in their clinical work (Table 1). After discussing the session’s specific goals (Table 1) and applications to clinical care, residents were provided guidance about appropriate uses of this tool in psychotherapy, distinction

from art therapy, and how to interpret and manage emotions that may arise during such an activity.

While some of the activities, e.g. the bridge drawing (Table 1), were more structured, other sessions were more spontaneous, allowing for direct processing of day-to-day experiences and clinical work. In another session, for example, residents were asked to draw an image inspired by a difficult clinical interaction. The artwork residents created varied from literal representations of the emergency room to abstract representations of their emotions at the time. Residents were encouraged to consider how one could process difficult or challenging material through artwork, a medium they may not have previously considered using.

In the initial year of this curriculum, all sessions were held during a weekly one-hour conference, optional for trainees on the hospital campus (approximately 20 total possible attendees). Attendance varied from 6 to 15

participants. Although systematic data were not collected regarding outcomes of this curriculum, attendance at this series surpassed attendance for other types of sessions within this conference hour that year. Residents expressed excitement for upcoming sessions, disappointment when unable to attend, and enthusiasm for continuing the sessions after the series had ended. Residents provided the most spontaneous positive feedback about Box Making and Shared Comic Creation (Table 1). We hypothesize these activities may have been particularly useful to residents due to the focus on boundaries and privacy in the former and collaboration in the latter, all of which have direct applicability to residency training in psychiatry.

Virtual Adaptation in the COVID-19 Era

This series (Table 1) was scheduled to be repeated during the winter-spring of 2020, and we sought to measure the impact via brief pre- and post-surveys for each session. The Institutional Review Board at our institution determined this study to be exempt. One in-person session (Shared Comic Creation, Table 1) was held before the COVID-19 pandemic began and residency didactics were shifted to a virtual platform. Initially, the curriculum continued in a virtual format, however, after two virtual art-based curriculum sessions, all non-essential residency didactics were canceled, including this series. The facilitator met with residents through a virtual video platform and followed the same session structure as the

original series. Content was adapted to require only paper and pencil or tools available within the virtual video platform (e.g. whiteboard feature).

In one virtual session, residents engaged in a collaborative drawing experience for 40 min. Residents were given prompts to draw (for example, “draw something scary,” Fig. 1) and created images together using the shared whiteboard feature through the virtual video platform. Participants were able to draw their own images and modify those drawn by their peers simultaneously, facilitating collaboration and discussion as residents realized similarities in what they had chosen to draw. For example, residents noted how, when prompted to “draw something scary,” multiple participants chose to draw images inspired by COVID-19 (e.g., masks, virus, uncertainty; Fig. 1).

As was the average in the first iteration, the in-person session had nine attendees. After the transition to the virtual format, six residents attended the first session; three attended the second session, consistent with what was seen in virtual didactics across the residency program. Surveys were provided to attendees of the sessions at the start and end of each session and comprised of 3–4 Likert scale questions asking about level of stress in that moment, level of feeling supported by peers, and comfort level in participating in the activity. An additional question on the post-survey addressed likelihood of using the activity in the future. In surveys obtained immediately prior to sessions, 11/17 residents (64.7%) reported their overall stress level was high (described as 4 or 5 on a 5-point scale), whereas only 3/17 residents (17.6%) described their current stress level as high immediately after concluding the activity. Prior to

Fig. 1 “Draw something scary” – collaborative digital drawing by four trainees

engaging in the activities, 12/17 residents (70.6%) thought they would feel comfortable engaging in the activity (described as 4 or 5 on a 5-point scale), but all 17 residents reported feeling comfortable with the activities after completion. In both the pre-and post-surveys, all residents reported feeling supported by their peers (described as 4 or 5 on a 5-point scale).

Critical Components of Incorporating Art into Educational Practice

While some academic psychiatrists might worry that specialized training or knowledge of these techniques is necessary in order to teach or use these tools, creating the space and understanding the activities (Table 1) is likely sufficient. The activities used in this curriculum were specifically chosen because, while they are powerful means of communication and engagement for both patients and peers, they require only brief preparation and no specialized knowledge. In particular, many of the activities in this curriculum rely more on creativity than skill. The open-endedness of prompts allows residents to tailor their work to their own skill level. An unexpected benefit of using the virtual whiteboard was its ability to equalize the skill level of all participants, given the imprecise nature of the device and relative unfamiliarity of all users.

To maximize participation and benefits of this curriculum when held in-person, art supplies should be provided to participants. There are many ways to mitigate costs and supplies can be re-used from session to session. In this curriculum, few supplies were needed; for the entire series of the in-person curriculum, the total supplies cost under \$30. For virtual sessions, most participants will have some writing implements and paper available. No art supplies are needed for sessions using the virtual whiteboard feature, though using smartphones, tablets, or computers each have their own challenges.

A final key component of the success of such a program is support from the institution and residency leadership. This series of sessions was possible as the Massachusetts General Hospital-McLean Hospital residency program had a flexible noon conference hour. Protected time for learning is highly valued in residency programs, and leadership must prioritize art activities in the same way that they would for a traditional didactic if such a program is to be successful. If residents are obligated to use their own free time in order to participate, the experience adds a burden to already busy schedules and is likely to be less embraced and valued. Unfortunately, these sessions were unable to be protected during the COVID-19 pandemic due to factors beyond the facilitator's control. As many programs continue to focus on resident wellness, incorporating such a program into the curriculum may allow

residents to engage with peers to think creatively and foster social connectedness.

This report and the curriculum, itself, have several limitations. Due to the structure of the clinical sites at this institution, as well as vacation and post-call days, the residents in attendance at each in-person session varied. This may have changed the dynamics within the group for each session and did not allow every resident to complete the full curriculum. While much of this is unavoidable, ensuring that clinical responsibilities do not impede the didactic hour when residents participate is critical. However, the transition to a virtual format allowed some to attend who would not have been able to make an in-person session. For example, one intern who was actively working on a COVID-19 unit was able to participate during her lunch break. Though we were unable to obtain feedback on this curriculum during its first implementation, we collected some data the second year, prior to the cancellation of the series. Further, the observed decrease in stress from the start to the end of the sessions cannot be extrapolated because of low numbers of participants and inability to account for other factors impacting stress. We are encouraged by the initial results; however, because formal feedback is not typically solicited for these types of conferences, we could not compare the impact of this curriculum to that of other sessions.

Practical Applications

This curriculum was specifically designed to allow for replication by an educator without a background in the arts and could be facilitated by any level of educator interested in promoting experiential learning and community in trainees. Although these tools are adapted from the art therapy field, it is not meant to be an art therapy curriculum and the authors, themselves, are not proficient in art therapy. In general, these activities work best in small groups; however, they could be applied in a large group setting or even one-on-one. Further, we adapted to the virtual format by necessity, which proved a valuable means of creating community and support amongst peers in different clinical settings. While not all the activities in the original curriculum would work in a virtual format, all of them would be feasible with slight adaptations (Table 1).

As clinical and didactic requirements for psychiatry residency training have increased significantly over the past decades, residency programs have struggled to find ways to integrate additional perspectives from the arts without overburdening or overscheduling residents. Art provides residents a unique way to process their emotions and the experiences they have throughout their training. The activities described in this curriculum are applicable not only to the residents themselves, but also are tools they can bring to their clinical work. Through sharing in art activities, residents

may create community with each other, learn from each other's struggles and successes, and share in ways that might not have been possible otherwise.

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Compliance with Ethical Standards

Ethical Considerations The Institutional Review Board at our institution determined that this study was exempt.

Conflict of Interest On behalf of all authors, the corresponding author states that there is no conflict of interest.

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