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PRACTICE GUIDELINES

Children and young people as simulated patients: recommendations for safe engagement

Andree Gamble[1], Debra Nestel[2,3], Margaret Bearman[4]

[1]*Monash Nursing & Midwifery, Faculty of Medicine, Nursing & Health Sciences, Monash University, Clayton, Victoria, Australia*
[2]*School of Clinical Sciences, Faculty of Medicine, Nursing & Health Sciences, Monash University, Clayton, Victoria, Australia*
[3]*Department of Surgery, University of Melbourne, Victoria, Australia*
[4]*Centre for Research in Assessment and Digital Learning, Deakin University, Melbourne, Victoria, Australia*

Corresponding author: Andree Gamble, Andree.gamble1@monash.edu

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ABSTRACT

Adult simulated patients (SPs) are now embedded in health professions education, prompting the development of practice standards. The comparatively sparse involvement of children and young people as simulated participants in education may account for the absence of standards to underpin their safe practice. Research suggests that children and young people who fulfil simulated participant roles have specific requirements not covered by existing standards. This paper offers recommendations specific to the safe engagement of simulated participants in health professions education that align with published guidelines for working with adult simulated patients. These recommendations include: Practical considerations, safe work environment, scenario development, training for role portrayal, feedback & completion of assessment instruments, parental responsibility and ethical considerations. We hope these recommendations are valuable for anyone working with children or young people in simulated participant roles.

Introduction

Patient care forms an integral part of health professions education. However, access to patients can be adversely affected by increasing complexity in care needs, the responsibility of practitioners to provide patient-centred care, financial constraints of health services and a safety agenda. Exacerbated by a pandemic, the availability of clinical placements for health professional learners is under enormous pressure.

Simulated patients (SPs) can support the development of patient care and thereby supplement clinical placements. First introduced by Barrows in 1968, an SP is someone coached to present the symptoms and signs of an actual patient [1]. Although SPs continue to role-play as patients, the breadth and scope of their roles have expanded (e.g. relatives, bystanders, healthcare professionals, etc.) leading to the introduction of a broader and more contemporary term, *simulated participant* to truly reflect their expanded scope of practice [2]. The term simulated participant (SP) will be utilized in this paper to reflect current terminology.

Children and young people (CYP) can also fulfil SP roles and research indicates they have a vital role to play in supporting learners in paediatric care, particularly in respect to the learning and practice of developmentally appropriate communication [3]. Child

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and young SPs (CYSPs) are a reasonably contemporary inclusion in simulation relative to adult SPs, and their involvement parallels the increasing need to offer alternatives to learning that occurs in clinical settings.

Previous research suggests that CYP who are engaged as SPs have a range of very specific working practices, and that educators require guidance to provide appropriate employment conditions. Budd et al. [4–6] researched the involvement of middle years children (aged 7–12 years) as SPs in healthcare simulation in three contemporary publications. In these works, the authors outlined identified the need for safeguarding CYSP practice and proposed some guidelines. We build on this work in this paper.

CYP SP practice

A review of literature published between 2016 and 2021 reveals the engagement of CYP as SPs in simulation is predominantly focused on the teaching of communication skills. This review identified that CYPs involved in simulation fall within the 6- to 19-year age range, with adolescents aged 12–18 the most represented demographic. Some studies also identify the involvement of children and young people in communication focused clinical skills assessments and physical examinations for a variety of health professions education programs. Table 1 offers an overview of the types of roles they currently portray.

Literature reports benefits for CYP SPs, the learners they engage with, and the education providers overseeing their involvement. Young people particularly acknowledge the value of their role in preparing future health professionals while also recognizing the positive impact a trained doctor or nurse can have on their own care and on paediatric patients [11]. Benefits include developing confidence, learning, and becoming more vocal about their own healthcare and influencing career choices [12]. Remuneration, although important is not the most persuasive factor in acceptance of SP work. Acting experience for those interested in drama-associated careers is a major factor in deciding whether to commence and continue SP work [13].

Learners value the ability to engage with children as preparation for clinical placement while the impact on communication skills and confidence levels rises when compared to more traditional forms of learning [14]. In a time where consistent access to quality clinical placement for every learner is becoming increasingly difficult, young SPs can help expose learners to the specifics of paediatric practice that they may otherwise miss out on.

Literature describes barriers and challenges surrounding the involvement of child and young SPs [7,12]. Recruiting young people below the age of consent, ensuring they truly understand the expectations of their role and appreciate the need for sometimes extensive preparation are widely identified as significant barriers [6,15]. Young SPs acknowledge adverse physical effects such as lethargy and boredom while fear of doing the wrong thing or negatively impacting assessments through inconsistent role portrayal [16]. There is also potential for them to experience adverse impacts on physical, emotional and/or psychological health that can last beyond the duration of the simulation [17].

Existing guidelines for SP practice

In 2016, after decades of SP involvement in health professions education, the first evidence-based guidelines to underpin SP engagement were published. The Association of Standardized Patient Educators (ASPE) Standards of Best Practice (SOBP), in combination with the International Nursing Association for Clinical Simulation and Learning (INACSL) Standards of Best Practice [18], provide a framework to guide adult SP practice. Five key domains are described: safe work environment; case development;

Table 1: Examples of SP roles

Authors	Profession	SP ages	Scenario focus
Aye and Noor [7]	Medicine	16–19 years	Adolescents portrayed a patient with a psychosocial issue. Medical students used the HEEADSSS psychosocial assessment tool to gather information about the adolescent's life.
Joukhadar et al. [8]	Medicine	10–19 years	Sensitive communication interactions with adolescent and SP mother pairs. SPs played the role of a 14-year-old interviewed by a PGY-1 resident. Questions were wide-ranging including sensitive topics such as substance use and sexual activity.
Budd et al. [6]	Nursing	7–12 years	A 3-part unfolding scenario involving assessment, care and communication with a child experiencing limb fracture. Focused on developmentally appropriate communication, gaining consent, assessment (neurological, neurovascular, and pain), preparing a child for theatre, post-operative observations, plaster care, and IV pain management.
Gamble [9]	Nursing	14–16 years	SPs portrayed patients with either T1 diabetes (needing a blood glucose reading, simulated injection and neurological assessment) or osteomyelitis (requiring neurovascular and pain assessment, and insertion of a simulated intravenous canulae for antibiotics).
Torres et al. [10]	Medicine	19-year-old but able to portray a 15 to 16-year-old	SPs participated in hybrid gynaecological examination (adolescent + pelvic trainer) for one of three conditions: dysmenorrhea, vaginal discharge or abdominal pain representing ovarian cyst.

SP training for role portrayal, feedback and completion of assessment instruments; program management; and professional development [19].

The ASPE guidelines provide a strong foundation for safe SP practice and have been utilized to support the development of frameworks for specific SP populations. In conjunction with best evidence, Smith et al. [20] developed a collaborative framework for working with older adult simulated participants. This framework draws on the structure, values and domains of the ASPE guidelines to identify key elements of preparation and training important to maintaining the well-being of older adult simulated participants who contribute to simulation-based education.

Existing guidelines for child and young SP practice

The range of concerns about potential harms to CYSPs underlines the need for specific recommendations to support young people's work in this field. Budd et al. [4,6] provide a useful foundation. They offered nine guidelines for the safe and productive involvement of child SPs with acknowledgement of principles underpinning recruitment and the associated documentary requirements. As the involvement of CYP SPs in health professions education develops beyond the traditional 'simulated patient' role, it is imperative that CYP are truly valued for what they bring to their role. With learner needs, and correspondingly SP roles expanding to include more diverse populations, guidelines must also adapt. Reflecting the needs of CYP SPs with English as a second language, learning disabilities, cultural or gender diversity adds another layer of individualization to the recruitment, support and safety requirements of CYP SP programs.

The availability of formal and informal strategies that facilitate SP feedback to learners without the associated anxiety that may accompany the provision of direct child-learner feedback is also incorporated into the guidelines. Budd et al. (2020) recognize that children can contribute meaningfully to the provision of learner feedback; however, this requires appropriate training, delivery and feedback processes. These aspects must reflect the SPs developmental stage, experience, the type of role portrayed and their self-expressed comfort level in delivering feedback. Although we can offer some generic suggestions, such as the SP giving feedback with their support person nearby, the delivery of feedback via video or in an informal setting where the facilitator 'chats' with the SP behind one-way glass, it is crucial to ensure the training and process of giving feedback are individualized to the SP.

While the guidelines offered by Budd et al. (2020) identify considerations for CYP SP inclusion, they are largely dependent on a case study focused on middle years children (aged 7–12 years) and aspects of their work may not be translatable to different age groups or offer sufficient description for adoption in other programs. Although touched upon in published research [4,6,21–23] a further rationale for developing these recommendations is in further ensuring the safe and ethical inclusion of young people in simulation.

Autonomy, justice, beneficence and non-maleficence are the core ethical principles underpinning every aspect of SP employment. In 2014, Hamilton and Clarkson offered a framework for ethical practice when CYP are involved as SPs. This recognized the need for expert recruitment of suitable CYP for the role, the writing of scenarios in conjunction with CYP SPs and heightened awareness of preserving the health, well-being and safety of these young SPs. However, these authors did acknowledge that regardless of the ethical imperative, several challenges remain including the potential for coercion and the inability to play a role maturely and consistently [24]. Additional ethical principles such as ensuring informed consent are freely given in response to information provided in an understandable way, adequately preparing and supporting CYPs undertaking challenging roles and identifying tolerance levels for repetition or more invasive examinations are all critical elements of CYP SP safe practice [21,25].

Recommendations for working with children and young as SPs

The presented guidelines are comprehensive across all ages and encompassing ethical concerns. In developing our recommendations, we reviewed empirical evidence focused on the experience of CY SPs and those who work with them. The recommendations also reflect our experiences as SP educators, the ASPE standards and aspects of the research undertaken by Budd et al. [4–6].

Each element of the following recommendations is important on its own, but as a package the concepts are interrelated and offer a comprehensive framework that encompasses all crucial aspects of CY SP practice. Although it is not expected these will be followed in their entirety for every instance, each should be considered when engaging CYSPs. Although they are primarily designed for faculty, there are aspects that can be devolved to CYSPs themselves to monitor and implement as necessary.

The recommendations have been organized into categories: practical considerations; safe work environment; scenario development; SP training for role portrayal; feedback & completion of assessment instruments; parental responsibility; and ethical considerations (Table 2). A case scenario illustrates how the recommendations can be applied (Appendix).

Implications for practice

The financial, human and time resources required to implement all the recommendations may be a barrier to their adoption. This can create a tension between recognizing their importance and having the resources to implement them. Ensuring ethical and safe practice is complex and despite its importance can be incredibly challenging. For this reason, it is suggested simulation programs critically evaluate their resource availability relative to the perceived importance of each recommendation and make a decision regarding what they can implement and whether this is enough to ensure safe practice.

Table 2: Recommendations for SP engagement

	Guidelines
1. Practical considerations	**1.1. Recruitment** 1.1.1. Evaluate children and adolescents for specific characteristics considered ideal for SP work (Gamble et al., 2020) 1.1.2. Consider schools as a source of recruitment, particularly if close to the intended workplace 1.1.3. Consider teacher involvement to screen children and adolescents for SP work 1.1.4. Involve children of faculty with caution because of the consequences of work not meeting expectations (Gamble et al., 2020) 1.1.5. Use a comprehensive approach for recruiting SPs for potentially distressing roles – consider the involvement of a recruitment agency or drama school 1.1.6. Orient SPs to the organisation and expectations of SP work that reflects the developmental age of SPs 1.1.17. Consider appropriateness of parental invitation to orientation **1.2. Scheduling** 1.2.1. Schedule simulation outside school hours where possible (Budd et al., 2020; Gamble et al., 2020) 1.2.2. Utilize school holidays where possible **1.3. Additional considerations** 1.3.1. Consider arranging transport to the simulation setting (Budd et al., 2017b) 1.3.2. Partner with local schools within walking distance so the need for parents or faculty to transport SPs is reduced
2. Safe work environment	**2.1. Human resource Implications** 2.1.1. Adhere to restricted work hours and employment conditions dictated by local and national legislation and policy (Budd et al., 2017b) 2.1.2. Provide information about remuneration before SPs agree to participate 2.1.3. Limit the number of repetitions of scenarios, particularly for those roles requiring standardization. Ideally, SPs should be asked how many repetitions they are able to undertake. As a guideline, 4–6 short repetitions (15–20 minutes) or 2 lengthy repetitions (above 20 minutes) are advised. 2.1.4. Schedule simulation activities to less than 4–6 hours per day to avoid fatigue and boredom 2.1.5. Recognise financial implications of employing SPs such as a child friendly space and child development specialists. **2.2. Support** 2.2.1. Ensure support options are developmentally appropriate for the specific SP 2.2.2. Ensure the SP knows who their support person is prior to the session should a parent not be available 2.2.3. Consider working with a parent (their own) or an adult SP as support for an inexperienced SP 2.2.4. Ensure that staff with expertise in supporting children and adolescents be available at all times 2.2.5. Arrange for parents or a nominated caregiver to be present for support, particularly for children and adolescents portraying challenging roles 2.2.6. Consider engaging 'spare' SPs since children can become tired or bored 2.2.7. Provide 'opt out words' for SPs should they become overwhelmed 2.2.8. Develop options/activities to meaningfully engage SPs during breaks, ensure they have access to food and drink and their own protected space 2.2.9. Protect children from potential adverse effects of role portrayal such as hearing their character might die 2.2.10. De-role SPs after simulation to avoid after-effects of role portrayal – role clinging/sticking 2.2.11. Structure time and processes for debriefing SPs and report adverse effects immediately and in the longer term 2.2.12. Monitor SPs for adverse effects which may need in-depth probing as some SPs might not recognise negative outcomes **2.3. Environmental considerations** 2.3.1. Anticipate potential for hazards from people and the environment 2.3.2. Identify and consider removal of equipment that may cause harm 2.3.3. Provide regular rest and food breaks to enable opportunities to re-focus. These should be negotiated with the SP but remain flexible in accordance with coping abilities and facilitator/SP perceptions of fatigue and consistency 2.3.4. Ensure there is a 'SP only space' where children and adolescents can relax and debrief with other SPs
3. Scenario development	3.1.1. Invite SPs to participate in developing scenarios with subject matter experts 3.1.2. Explore with SPs whether elements of their own experiences can be drawn on when developing a case 3.1.3. Avoid roles that may reignite negative past experiences or trauma for SPs 3.1.4. Ensure SPs are involved in discussions about the extent of their involvement – particularly for physical assessment scenarios

Table 2: Continued

	Guidelines
4. SP training for role portrayal, feedback and completion of assessment instruments	**4.1. Preparation** 4.1.1. Outline expectations of preparation 4.1.2. Provide role outlines to young SPs in advance of the scenario 4.1.3. Review the learning outcomes with SPS to promote role adherence (Budd et al., 2017b) 4.1.4. Ensure SP readiness for the role through practice and through videos of the condition they are simulating, or watching another SP perform the role 4.1.5. SPs should be briefed by faculty prior to commencing the scenario 4.1.6. Offer rehearsal opportunities and time given for SPs to discuss their interactions if more than one SP (SP or adult) are involved 4.1.5. Tag-team preparation is a good option for roles requiring standardization [25] 4.1.6. Ensure SPs are regularly provided with training opportunities to maintain performance **4.2. Feedback** 4.2.1. Outline expectations of feedback 4.2.2. Review the role and purpose of feedback and provide developmentally appropriate training for SPs – during orientation and prior to each simulation 4.2.3. Inform SPs of feedback logistics – direct to the learner, to the simulation practitioner or via live stream to learners from another location etc. 4.2.4. Provide opportunities for SPs to practice feedback delivery with faculty prior to their involvement in giving learner feedback 4.2.5. Respect the decisions of SPs unwilling to provide feedback to learners 4.2.6. Provide opportunity for SPs to feedback about their experiences as an SP
5. Parental responsibility	5.1. Involve parents during the recruitment phase 5.2. Provide parents with roles so that they can determine suitability prior to giving consent 5.3. Ascertain if parents can stay on site for the duration of the session 5.4. Fully inform parents of the expectations of their child prior to giving consent 5.5. Confirm transport arrangements with parents 5.6. Ascertain if parents can monitor their child for adverse effects in the short- and longer-term following role portrayal, particularly in more challenging, complex or emotive scenarios
6. Ethical considerations	6.1. Match developmental stage with duration of involvement 6.2. Obtain informed consent/assent – verbal and documented consent/assent is ideal 6.3. Respect dissent at any point prior to or during the session 6.4. Provide SPs with permission to speak up when unsure or uncomfortable 6.5. Use developmentally appropriate strategies to ensure SPs understand the expectations 6.6. Analyse the potential for coercion and address this prior to the SPs involvement 6.7. Balance beneficence and non-maleficence: Does the benefit to the SP outweigh the potential risks 6.8. Ensure learners are well prepared to work with SPs who are children or young people

Analysis of resources required for implementation

Considering the recommendations with an awareness of the potential costs, particularly in respect to time, human resources, and financial outlay can provide pre-adoption insight into whether it is feasible and achievable. It may also enable simulation programs to discern which of the recommendations they can realistically adopt and which they can delay until resource availability improves.

Conclusion

This paper offers recommendations to underpin the safe, developmentally appropriate, and ethical inclusion of CYSPs in health professions education. The recommendations cover key criteria to contemplate when engaging CYSPs, including practical considerations, provision of a safe work environment, scenario development, training for role portrayal and feedback, parental responsibility and ethical factors. We expect that simulation programs will adopt those of relevance, dismiss those believed to be less important and adapt others to suit their needs. Before working with CYSPs, it is important to determine if resources are available to implement the recommendations relevant to the setting.

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Authors’ contributions

All authors conceptualized and analysed the work, as well as participated in drafting the work, revising it critically, and approved the final version to be published.

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APPENDIX

The following information offers an overview of a scenario for an young person aged between 12 and 18 years. The role offers information about the character that the SP can use to determine their involvement. We use this role to illustrate the recommendations.

1. Scenario Outline

Learner Group	• Year 3 undergraduate nursing students enrolled in a paediatric elective unit
Learning Outcomes	On completion of the session, the students will be able to: • Demonstrate skills to obtain a focused health history including psychosocial and cultural assessment. • Critically analyse the assessment findings to determine nursing problems and establish plan of care for the patient and family. • Demonstrate developmentally appropriate strategies to communicate with a young person.
Scenario Plan	• One student will commence the psychosocial interview with the SP – at this stage the parent is present. At 15 minutes into the scenario, the parent leaves the room. The scenario ends with the student giving a handover to a senior registered nurse (RN).
Time Allocation	• Briefing: 40 minutes • Simulation: 30 minutes • Debriefing: 45 minutes

2. Role Profile

Name/Age: Sam Thomas (aged 16 years)
Family/Social/Work Details: You live with your mother and stepfather. Your *biological* father lives in the same suburb as you but has not maintained a relationship with you since your parents divorced 10 years ago. You have a brother who lives out of state, and you have no contact with him either. You have a 5-year-old sister, the child of your mother and stepfather. You come from a middle-class family. Your stepfather owns a construction business. Your mother left school during her final year as she fell pregnant (unplanned) and now works as a receptionist at a local medical clinic. **School:** Due to diabetes, your school attendance is relatively poor. You have missed 12 school days in the past 3 months. Your grades have been going down and you are increasingly anxious about going to school. You have very few real friends and other students continually ridicule you. **Social:** You receive pocket money of $35 per week for doing household chores. Most often, you spend your pocket money on take-away food and going to movies with 2–3 others who are similarly outside of the 'in group' at school. Although you want to fit in, you lack the social skills required to get along with your peers. You're a bit aggressive sometimes which often results in confrontations and arguments with your peers. Other young people describe you as being overbearing and bossy, so ultimately, you stay to yourself and do not get along well with peers. **Hobbies/Physical Activity:** You play rugby very well.
Current Health Situation: You are visiting the hospital for the third time in 3 months. You haven't eaten much in the last couple of days, and you're surprised to see your weight on admission has dropped by 3 kg when you thought it had increased. You tell the nurse you have been doing your blood sugar testing a few times every day and having your insulin as prescribed.
Past Medical History: Your diabetes was first diagnosed when you were 5 years old. None of your family have any health issues but because you don't have a relationship with your biological father or your brother, you cannot be certain.
Physical Preparation/Appearance: You are sitting on the edge of the bed in your own clothes – clean and well presented. You're playing on an iPad at the start of the scenario.
Demeanour/Interactivity: You are quite withdrawn, reluctant to maintain eye contact and give only short responses. You only elaborated on your answers if asked by the student. If you think the student is kind to you, really listening to you and caring about you, then you will be more likely to give fuller answers (more than yes or no) and you will be more likely to look them in the eye.
Expected interventions: Students will want to take your blood sugar level (which involves a finger prick to test blood) – please note that this will be simulated with a 'fake finger instilled with pretend blood. Students will do what we call 'an adolescent psychosocial assessment' and this involves asking you questions about your home and school life, hobbies, habits and your ability to manage your diabetes.

Applying the recommendations

We have recruited an SP named Alex to participate in this scenario as Sam Thomas. We illustrate how the recommendations could be applied: We describe five stages: 1) General Considerations; 2) Preparation; 3) Scenario Day; 4) Post-scenario; and 5) Follow-Up. We note the associated recommendation in use, alongside the relevant place in the vignette.

General Considerations

1.1. Recruitment

Alex is a 16-year-old secondary school student undertaking a drama elective. Alex was recruited via word of mouth from a parent who works within the faculty and has a child in the same class as Alex at a local school (Recommendations 1.1.2, 1.3.2). The human resources guidelines of the simulation centre necessitate official employment rather than volunteerism for all CYSPs (Recommendation 2.1). As a result, Alex has been appointed as an SP after providing informed verbal and written assent, and parental consent (Recommendations 5.1, 6.2).

1.2. Orientation (Recommendation 1.1)

Alex has been orientated to the environment and to the work in a general SP orientation session. This included a tour of the environment where Alex will be working, and an overview of frequently occurring roles, expectations of preparation, what happens on the day of the simulation, preparation to provide feedback and availability of debriefing/support prior, during and after the simulation. Alex also attended a specific orientation where additional information about CYSP work was provided. This content focused on aspects such as the requirement for consent/assent from both parents and CYSPs (Recommendations 5, 6.2), tips on preparing for roles, CYSP involvement in writing role outlines (Recommendation 3.1.1), guidelines about ceasing participation if discomfort occurs or a break is needed (Recommendation 2.2.7) and CYSP specific break and support options (Recommendation 2.2). Importantly, this orientation was facilitated by a paediatric specialist able to express this essential content in developmentally appropriate language (Recommendations 2.2.4, 6.5). Acknowledging wavering concentration levels in young people, the need to review information near to simulation participation, and the variability in parental attendance at orientation sessions, all crucial information was also provided in written format (Recommendation 1.16). Specific role orientation and briefing is scheduled to occur just prior to the simulation.

During the orientation to the session, Alex stated his reluctance to participate in feedback to the learner. Faculty had the opportunity to explore his concerns about feedback and they related to him not really knowing what this would be like. With further discussion and demonstration, Alex has agreed to try this out in a small group before working with larger groups. Preparation for this includes a role-play during the orientation session and the principles of feedback included in the written information provided to Alex (Recommendation 4.2).

1.3. Consent (Recommendation 6.2)

Consent and assent have been secured for inclusion in the CYSP program. However, it is important that both consent and assent are sought prior to each simulation. This allows for discussion between CYSP and parents regarding the expectations of each SP role. Given the sensitive nature of the role Alex is playing, it is particularly important as parents act to safeguard their child's welfare. Knowing their child best enables them to make an informed decision regarding their ability to handle the role and any possible adverse consequences (Recommendation 5.4). Alex's parents are also in a prime position to attend the simulation as a support person, debrief or provide longer-term support as required (Recommendations 2.25, 5.3).

1.4. Scheduling

The simulation has been scheduled to occur on a day that Alex has no class or study commitments, so it has limited impact on Alex's school or extracurricular responsibilities (Recommendation 1.2.1). The proximity of the school to the simulation centre negates the need for parents to provide transport (Recommendation 1.3.2).

2.1. Preparing for the role

An outline of the role was discussed with Alex and an opportunity provided to participate in fleshing out the scenario to ensure comfort with the role and to make preparation and role portrayal easier (Recommendations 3.1.1, 3.1.2). Alex proposed to add some of the following information to explain Sam's aggressive behaviour – if Sam knows he's seen this way and why he behaves that way with his classmates. After Alex has comprehensively reviewed the role and discussed it with his parents as necessary, re-affirmation of involvement without duress is sought (Recommendations 4.1.2, 5.4, 6.2). As Alex is the only CYSP playing the role of Sam, and it is not an assessment, additional preparation such as 'tag-team' is not required.

Preparing for what could be a psychologically challenging role requires an in-depth process that is well supported by trained professionals and parents (Recommendations 2.2.4, 2.2.5). A clear framework has been suggested to all CYSPs including Alex to guide their preparation. This includes Alex reviewing the role, researching the condition and watching a video of another SP playing the role (Recommendation 4.14). Alex is advised that faculty are available to contact should there be any questions. Alex also tells you that one of his friends has diabetes and that he has developed better understanding of what the disease it by taking on this role. The simulation centre has ensured that appropriately trained staff with paediatric and mental health training are available to assist Alex's preparation and to provide support as required (Recommendations 2.2.1, 2.2.2).

3.1. Considerations

On the day of the simulation, faculty are advised that a young person is present (Recommendation 2.3.1). This serves to

moderate the environment and interactions as a safeguard for their welfare. Although Alex is not new to the simulation environment, he is still provided with an orientation to faculty, additional SPs and equipment that may be encountered during the scenario. The presence of Alex's parents during the scenario has been discussed with Alex determining that parental presence was not necessary (Recommendation 5.3). When planning the scenario, rest breaks have been planned and opportunities to eat/drink in a CYSP-only space has been scheduled into the simulation plan (Recommendations 2.1.4, 2.2.8).

3.2. Briefing

Pre-briefing with Alex is conducted by one faculty member prior to the simulation to ensure adequacy of preparation, comfort with the role and to identify any outstanding queries or questions (Recommendation 4.15). The faculty member has paediatric training and will assume the support role for Alex from scenario inception to debriefing (Recommendation 2.2.1). The scenario will run twice on one day with SP involvement for 30 minutes each time – this has been negotiated with Alex in advance (Recommendations 2.2.1, 2.1.3). Should this have been considered too overwhelming, a 'spare' SP is trained and available to take over the role (Recommendation 2.2.6). Alex is provided with options to take a break if aspects of the scenario become overwhelming – 'I need to go the bathroom' is used in this scenario (Recommendation 2.2.7). Should Alex be nervous, the use of an earpiece to maintain contact during the scenario, or the addition of an adult SP in the guise of the a parent can be utilized as a means of support. For this scenario, an earpiece was considered sufficient. Opportunity for a final rehearsal with faculty is undertaken immediately prior to the simulation (Recommendation 4.15).

1.1. Feedback

At the end of the scenario Alex provides feedback to the learner in a supported manner (with two faculty present). In this instance, Alex offers feedback through the experience of their role-played character. Because feedback delivery can be challenging, the Pendleton model of framework was provided to all SPs at orientation. This framework enables SPs to follow prescribed elements (what did and didn't go well, how would the learner alter their behaviour in future similar situations) and as a result lessens the anxiety SPs including Alex feel when offering constructive feedback to adult learners (Recommendation 4.2.1). The time frame for feedback from Alex is relatively short (less than 10 minutes) as any longer is identified as increasing Alex's already heightened anxiety levels (Recommendations 4.2.2, 4.2.3).

1.2. De-roling

Given the potentially stressful nature of the role Alex is played, it is crucial that de-roling is offered. Alex's support person has spent the most time with Alex and is well suited to help Alex shed the role, share any concerns he has about it (Recommendation 2.2.11). Although there may not be any immediately observable or expressed adverse effects, the support person encourages Alex to reflect on the role experience. Active listening and observation of body language may be enough to identify concerns that are not consciously expressed.

Young people can experience negative or distressing events during simulation that extend into their own lives. Schedule a post-simulation follow-up with someone they know. This follow-up role can be negotiated with the parents as they may be best positioned to facilitate this. If not, it is important faculty touch base with Alex in the medium term, perhaps a week later, and again 3–4 weeks post role portrayal. Although this may seem excessive, and is by no means necessary for every role, a case that includes elements of distressing events such as bullying, necessitate follow-up (Recommendations 2.2.11, 2.2.12, 5.6).