Board games are raising staff awareness of pressure ulcer prevention and other patient safety issues as part of a wider regional education and improvement programme

How board games can be used to improve safety

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The growth of serious games

One definition of serious games is "games that do not have entertainment, enjoyment or fun as their primary purpose" (Michael and Chen, 2005). Such games harness the enjoyable aspects of playing to deliver information more effectively.

Using games for non-entertainment purposes is not a new idea: the Prussian army developed sophisticated table-top war games, or “kriegsspiele”, as early as 1812. The use of serious games was further developed and widely introduced in the 20th century by teachers searching for new ways to engage and motivate their pupils.

In the 21st century, serious gaming, or games-based learning, was introduced to wider audiences in diverse sectors including healthcare, science, politics, defence, aviation and management. When used in this context, serious games can help create a relaxed learning environment, where learning is fun and sociable while still being mature and professional (Connolly et al, 2012).

There is growing evidence for the efficacy of games in healthcare education (Tanaka et al, 2010), rehabilitation (Burke et al, 2009) and behavioural change (Kato et al, 2008). However, their use in healthcare is growing rapidly, it is still relatively new and many games are not validated for their use as a tool to improve outcomes. The few research studies that do exist are often poorly designed, and their conclusions cannot be considered valid evidence to support or refute efficacy (Kato, 2012).

Board games are increasingly being used to engage and educate frontline staff, patients and carers. Apparently simple table-top games can deliver a multi-faceted experience to the players (Box 1).
A carefully designed game built around relevant clinical content can deliver a vast amount of information to between two and 14 players in a 45-minute-to-an-hour session. These games can be used as stand-alone learning resources, or as adjuncts to more traditional training and education delivery, and often allow levels of competence to be assessed.

The potential of serious video games to help increase the effectiveness of training and learning is much debated (Connelly et al, 2012). Some studies suggest it can increase motivation and accelerate learning (DeFreitas and Oliver, 2006). This is coupled with a generational acceptance of games as a significant part of everyday life (Gee, 2007).

Games in pressure ulcer prevention
In October 2011, Midlands and East Strategic Health Authority set itself five ambitions for improving the patient experience of care through a legacy of initiatives that would be continued and sustained in the new NHS (McIntyre et al, 2012). Among these was a plan to eliminate avoidable new grade two, three and four pressure ulcers. Ten work streams were identified as an innovative and effective engagement campaign that would complement other models of training. It was thought games of nursing and support staff was large, diverse and geographically widespread, so the region’s response was an integrated engagement campaign called Stop the Pressure (Fig 1) (www.stopthepressure.com), aimed at frontline staff in acute, mental health and community settings. This was used to motivate frontline staff to prevent pressure ulcers and as a portal for education and communication resources.

As part of this work, serious games were identified as an innovative and effective engagement and learning mechanism that would complement other learning (DeFreitas and Oliver, 2006). This was used to motivate frontline staff to prevent pressure ulcers and as a portal for education and communication resources.

The board game has also been used by ward staff to educate patients about pressure ulcer management. Patients can take the board game home to play and give feedback on their experience to staff. Also, by taking the game to conferences, where it can be played with delegates, issues, concerns and misunderstandings can be discussed and shared.

Putting the game into practice
So far more than 800 games have been distributed across the region and nationally. The game has been tested by managers, staff and patients, who described it as an enjoyable and effective
learning tool. Feedback from staff suggests it is an innovative way to enhance learning and stimulate discussion among teams and across complex boundaries of care and patient pathways.

For example, one acute organisation used the Stop the Pressure board game during its annual link nurse study day. At registration, each of the 60 attendees was allocated to one of six teams. Three games (with two teams playing against each other) were set up, managed by the tissue viability nurse and requiring only ‘light touch’ facilitation.

The sessions were lively and competitive. Staff said the game was fun, tested their knowledge and made them think about what is involved in ensuring tissue viability.

An online version has now been developed to extend the reach and impact of the game, especially among younger audiences. It has also proved popular with patients and carers as information can be accessed easily and when time allows.

**Extending the programme**

Following the success of the Stop the Pressure board game, a second game has been developed on nutrition and hydration (Fig 2). The Nutrition Game was launched in 2013 and won Nutritional Resource of the Year at the Nutrition and Health Live awards that year.

A more complex board game, the Harm Free Game, has also been designed with Derbyshire Community Health Services NHS Trust and NHS Innovations to help staff understand their role and responsibilities in reducing avoidable patient harm. The game encourages staff to communicate and share experiences by working through realistic scenarios that could occur in their day-to-day work. Specifically, it focuses on how staff can influence the prevention of four key harms:

- Falls;
- Catheter-associated urinary tract infections;
- Pressure ulcers;
- Venous thromboembolism.

The game also highlights other related areas of harm such as medication, nutrition and hydration. Results from one acute trust—a 3,000 of its staff had played the game once, with no other interactive educational intervention—showed an improvement of around 10% in patient’s ‘harm-free scores’ (from 81.6% in April 2012 to 90.32% in March 2013).

Further games have been produced, including one on dysphagia and another on complaints, developed as a joint initiative with the Patients Association. Both are available for staff, patients and carers.

**Practice implications**

Educational board games are an alternative and portable solution to training, and may be developed as part of a suite of teaching materials. They can be fun, stimulating and an opportunity for staff to discuss emotive issues in a non-threatening way. They explore all aspects of care delivery and encourage communication, interaction, teamwork and reflective practice.

The fact that they are fun enables participants to learn effortlessly and effectively. This style of learning appeals to frontline clinicians because it can be delivered in the clinical setting and lets them do some of their mandatory training in teams, in a way that stimulates discussion and helps strengthen and build team relationships. There is also an opportunity to assess levels of competency following the core training, through scenario-based questioning and team review.

Accompanying these board games with online versions, accessible on smartphones, tablets and PCs, extends their reach to a wider audience and ensures games appeal to all age groups.

**Conclusion**

Overall, the Midlands and East regional initiative has achieved a nearly 50% reduction in new grade 2, 3 and 4 pressure ulcers across the region. It is not possible to say how much of this is due to the use of board games, but staff feedback suggests serious games provide a fun and informative method of training and education, as a valuable addition to education and improvement programmes.

**References**


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