Whisper Down the Lane

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Introduction

APLS[1] teaches us the importance of clear and accurate team communication when it comes to stabilising the acutely unwell child. Anecdotally our team had noted that verbal communication wearing FFP3 masks was challenging. Concerned that this posed a potential risk to our patients, we utilised well-known children's games to pre-emptively explore the extent of the problem as well as potential solutions. We were limited by participant numbers, cost and time so needed to be creative.

Aim

Could we accurately pass on verbal information safely in our resus bay whilst wearing FFP3 masks?

Methodology

Game 1

Whisper down the lane: 4 participants wore FFP3. Participant 1 relayed instruction to participant 2 as they entered the room and so on. 3 scenarios were trialled twice, once using a common APLS[1] instruction (e.g. please give phenytoin 20mg/kg IV over 20 minutes – 200mg total please) and once a nonsense instruction participants had no cognitive bias towards (e.g. cow jumped in the bucket to impress the pig).

Scenario 1 – no background noise, standing 2 metres apart

Scenario 2 – background noise (defibrillator/monitors on, 'baby shark' playing in the background)

Scenario 3 – background noise and participant receiving instruction distracted building tower of blocks.

Scenario 4 – background noise but participants able to use a white board to relay written instruction

Measures:
Objective: Did person 4 accurately report back the initial instruction?
Subjective: assessment of safety, difficulty and risk of drug error.

Game 2

Treasure hunt: Participant 1 relayed 8 simple instructions to participant 2 e.g. 'pass me a blue cannula'. Participant 2 required to get each item and place on resus bed. Instruction 8 was a standard paracetamol prescribing task. Treasure hunt played once with participant 1 wearing a surgical mask, second wearing reusable FFP3 and the third FFP3 and an amplifier. Participant 2 changed for each scenario. 'Baby shark' and monitors on for all 3 scenarios.

Measures:
Objective: Number of times instructions given before it was understood. Total time taken to complete treasure hunt.
Subjective: assessment of safety, difficulty and risk of drug error.

Results

Whisper Down The Lane – Objective Results Table One

Scenario number	Instruction number 1 (APLS) – % of times passed on accurately?	Instruction number 2 (nonsense) – % of times passed on accurately?
1	100%	100%
2	100%	100%
3	0%	0%
4	100%	0%

Scenario 3: Instruction	Initial instruction given	Final instruction delivered
APLS	Please give Atropine 300 micrograms IV	I have no idea
Nonsense	A fork cannot be used to eat melted cheese	A horse is not made of cheese

Image 1: White board from Scenario 4 Whisper Down The Lane – should read 'the moon speaks curious piggy poetry'

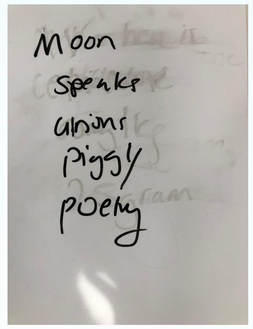

Image 2: Whisper Down The Lane – Dr T. Rance models his reusable FFP3

Whisper Down The Lane – Subjective results Table Two

Scenario Number	% of participants that felt there was a risk of a drug error (n=5)	% of participants who found communication difficult? (n=4)	% of participants who thought communication unsafe? (n=5)
1	0%	0%	0%
2	100%	100%	20%
3	100%	100%	100%
4	100%	100%	100%

Treasure Hunt – Objective results Table Three

Scenario number	Total time taken to complete hunt:	Total number of instructions given (minimum 8):	Was prescription instruction correct?
1 surgical mask	1 minute 53 seconds	8	Yes
2 FFP	2 minutes 19 seconds	16	Yes
3 FFP + amplifier	1 minute 18 secs	8	Yes

Image 3: The team plays whisper Down The Lane

Treasure Hunt – Subjective results Table Four

Scenario number	Did you feel there was a risk of a drug error? (N= 2)	Was communication difficult? (N = 2)	Was communication unsafe? (N = 2)
1 surgical mask	No	No	No
2 FFP	Yes	Yes	Yes
3 FFP + amplifier	No	No	No

Discussion

We clearly demonstrated the potential for clinically significant communication difficulties whilst wearing reusable FFP3. These challenges are exaggerated in the context of task distraction and background noise, elements common to the majority of paediatric resuscitations. In clinical scenarios where keeping the child calm is imperative (e.g. Croup) it is not uncommon to hear the dulcet tones of 'baby shark' on YouTube and keeping distressed parents outside of the room is not usually an option. In addition when stabilising the acutely unwell child it is likely the team will all be task engaged, inserting cannulas or preparing medications for example.

The results of the "treasure hunt" raise the possibility that reusable FFP3 masks could lead to delayed patient care, an additional risk in the context of time critical patient stabilisation[1].

While we trialled using white boards/written communication this proved to be of limited benefit. Anecdotally the team felt it was cumbersome, not time effective and hand-writing dependent. In addition this approach did not allow effective two way communication.

An inexpensive amplifier was used as part of the "treasure hunt" (approximately £19.99 from Amazon). This provided a potentially cost-effective solution to our problem.

We presented our findings at our local Research, Quality Improvement and Innovation conference. As a direct result of our findings, the Trust Patient Safety Group has allocated funding and created a working group to explore solutions, including laryngeal microphones.

Recommendations

While this study has a number of limitations (the numbers involved are small and the techniques used were pragmatic rather vigorous and validated), it demonstrates how a small team can collect data to rapidly bring about a real change. This approach allowed serious patient safety concerns to be highlighted in greater detail and in a creative way that could be easily communicated with the extended team.

References

1. resus.org.uk/library/2015-resuscitation-guidelines/paediatric-advanced-life-support