

How We Really WHO

Assessing Completeness, Team Engagement, Distractions And Authority During WHO Safer Surgery Checklist: Prospective Observational Study In A Single Center

Introduction

World Health Organization Surgical Safety (WHOSS) Checklist reduces surgical complications and has been mandatory in the UK since 2009. While audit data reports high compliance rates, anecdotal observation suggests that the actual performance of the checklist may be suboptimal, with poor team engagement and many distractions. The aim of this study was to observe the quality of “Time Out” part of the WHO Safer Surgery Checklist.

Methods

Two assessors collected data on quality and completeness of the checklist as well as engagement of the surgical team and the level of distractions. The WHOSS Checklist is designed to be a “challenge and response” type of checklist (*i.e.* a team member reads out items, followed by an appropriate response from the team) with the entire theatre team actively participating and with distractions minimised.

Data from the WHOSS Checklists performed in 22 obstetric and gynaecology cases that were collected over two weeks period. Checklists were lead by trainees (n=4), nurses (n=6), operating theatre practitioners (n=6) and healthcare support workers (n=6). The checklists were initiated and completed in all cases but not all items were communicated in the correct “challenge and response” manner. In some cases, the team member who read the question (“challenge”) also answered it without waiting for a response. The mean percentage of questions appropriately “challenged” and “responded to” was 87.6%. The mean duration of the “Time Out” was 103 seconds and irrelevant chatter, auditory, visual distractions, and theatre traffic occurred in all cases and lasted for a mean of 32, 17, 22 and 2 seconds, respectively. The mean level of team engagement was II (*i.e.* at least 2 team members were not actively participating). The likelihood of a junior “speaking up” was 6/10 on the VAS.

The following data were collected:

- % of the questions listed in the Checklist being correctly responded to after “challenge”
- Type of distractions and the duration
- Level of team engagement:
 - I All theater staff not engaged
 - II Two or more members not engaged
 - III One member not engaged
 - IV All members engaged
- Authority gradient and likelihood of junior team member being able to speak up assessed on a Visual Analogue Scale (VAS)

Results

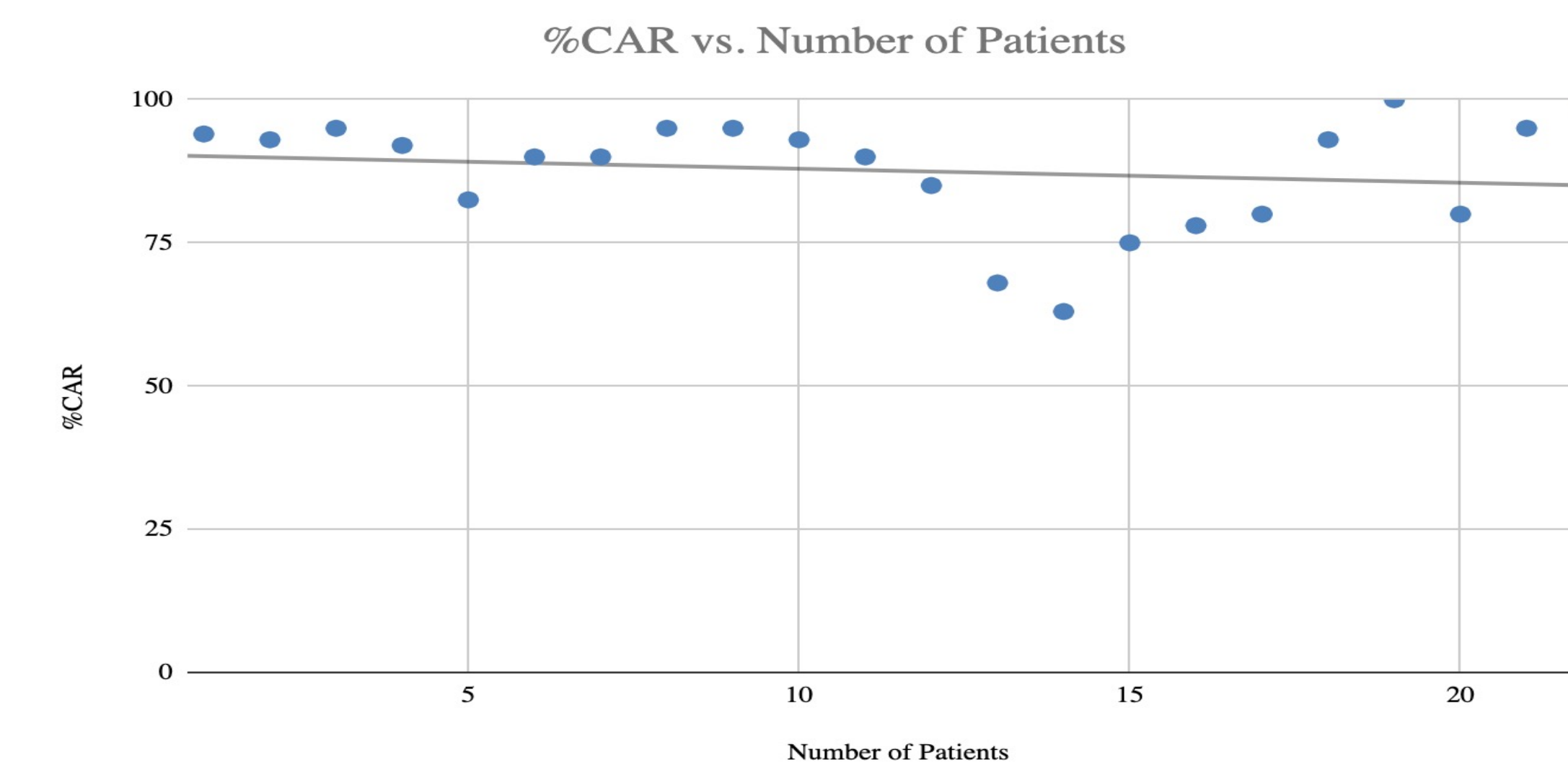


Figure 3: It is a scatter plot of % of correctly responded after challenged; horizontal axis indicates number of patients (n=22) and vertical axis corresponds to percentage of questions properly responded after challenged. Given the checklist consist of 18 questions in total in gynae theatre and 15 questions in obstetrics, we observed the responses to each challenged questions and counted the percentage. The average responses recorded was 87.6 %.

17 questions were responded out of 18 questions on the Time out checklist suggesting on average in gynae theatre; at least one questions was not properly communicated. The highest that was observed was 100% meaning all questions were challenged-responded clearly and lowest was 63% suggesting only nine questions challenged out of 15 on the checklist in obstetric theatre.

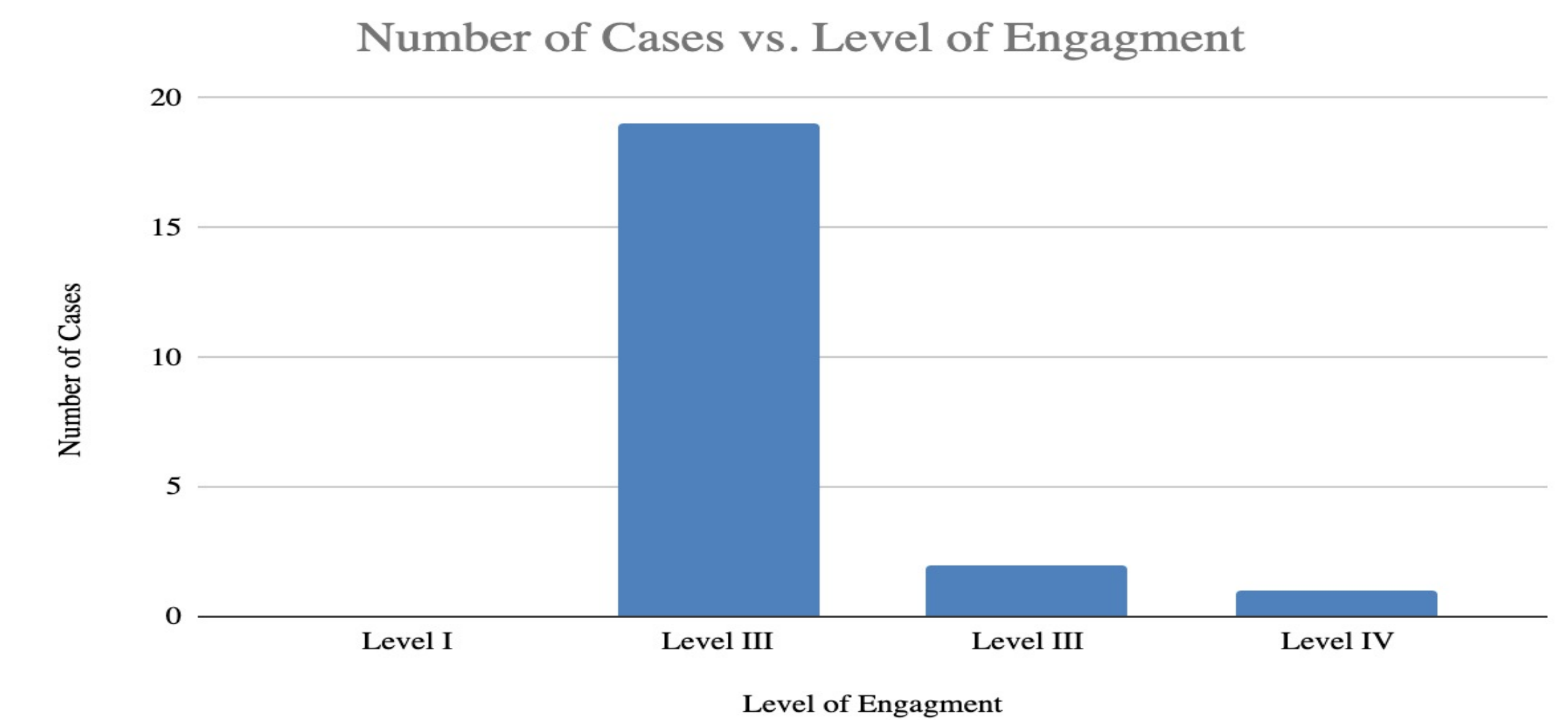


Figure 1: indicates the level of team engagment during WHO Time Out checklist. The horizontal axis represents the four levels of engagement (I-IV), and vertical axis corresponds to number of cases (n=22). The mean level of engagement was recorded to be level II, which implies two or more members disengaged in 19 cases out of 22 total cases.

Mean Duration of Distraction during WHO Time-Out

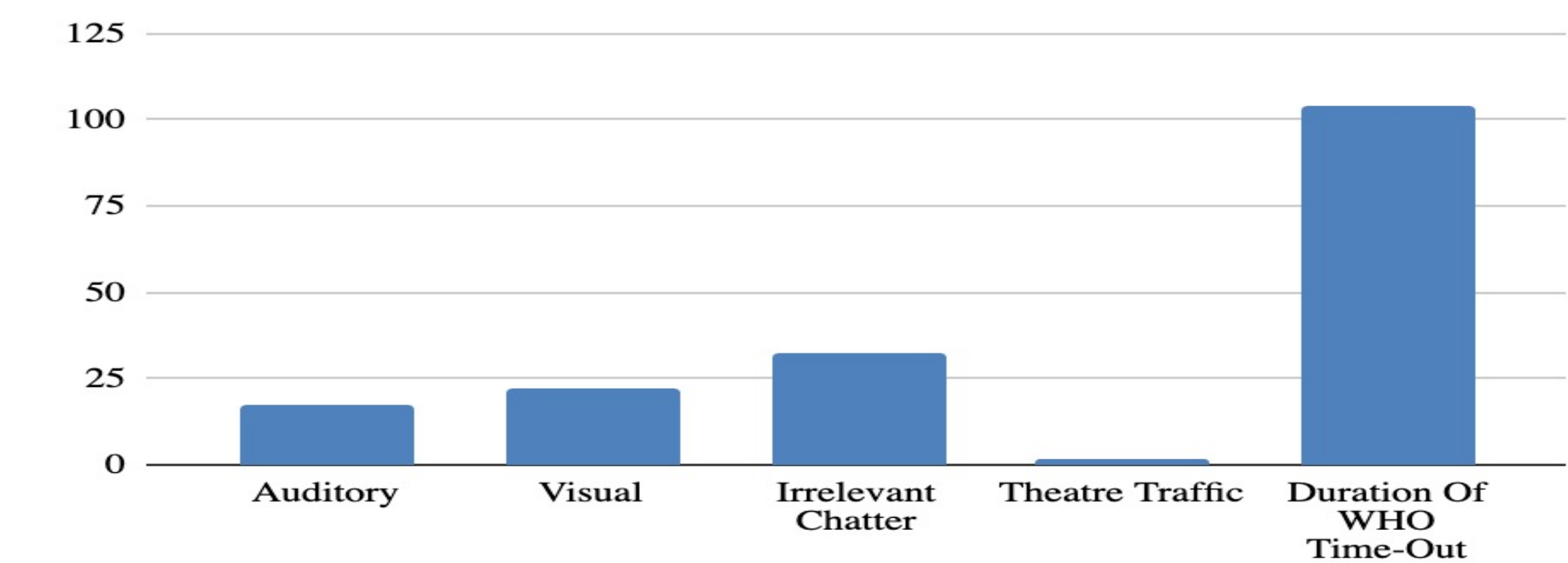


Figure 2: The graph above illustrates the mean duration of completed WHO checklists and distractions in seconds. The x-axis represents the Time Out duration and the type of distraction, while the y-axis indicates the mean duration in seconds. The average time taken to complete the Time Out Checklist was observed to be 103 seconds. Notably, approximately one-third of the mean duration of the Time Out checklist was occupied by different types of distractions.

Conclusion

WHOSS Checklist “Time Out” is often not clearly announced or correctly performed. It is also plagued by unnecessary distractions and suboptimal team involvement.