

Caller's Ability to Understand “Responding Normally” vs. “Completely Alert” Key Question

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Introduction

Anecdotally, numerous MPDS® (Priority Dispatch Corp., Salt Lake City, Utah, USA)-user agencies in the USA, Canada, UK, and Brazil have reported that the emergency caller has difficulty understanding the key question (KQ) “Is s/he completely alert?” According to emergency medical dispatcher-Quality (EMD-Q) case auditors in these agencies, callers often respond to this question with ambiguous answers such as “I think so,” “Sort of,” “He’s alert but a little disoriented/confused,” or simply respond by stating they don’t understand the question (e.g., “What do you mean by completely alert?”, etc.). These answers result in the EMD attempting a clarification to the question, often by using the scripted parenthetical clarifier “responding appropriately.”

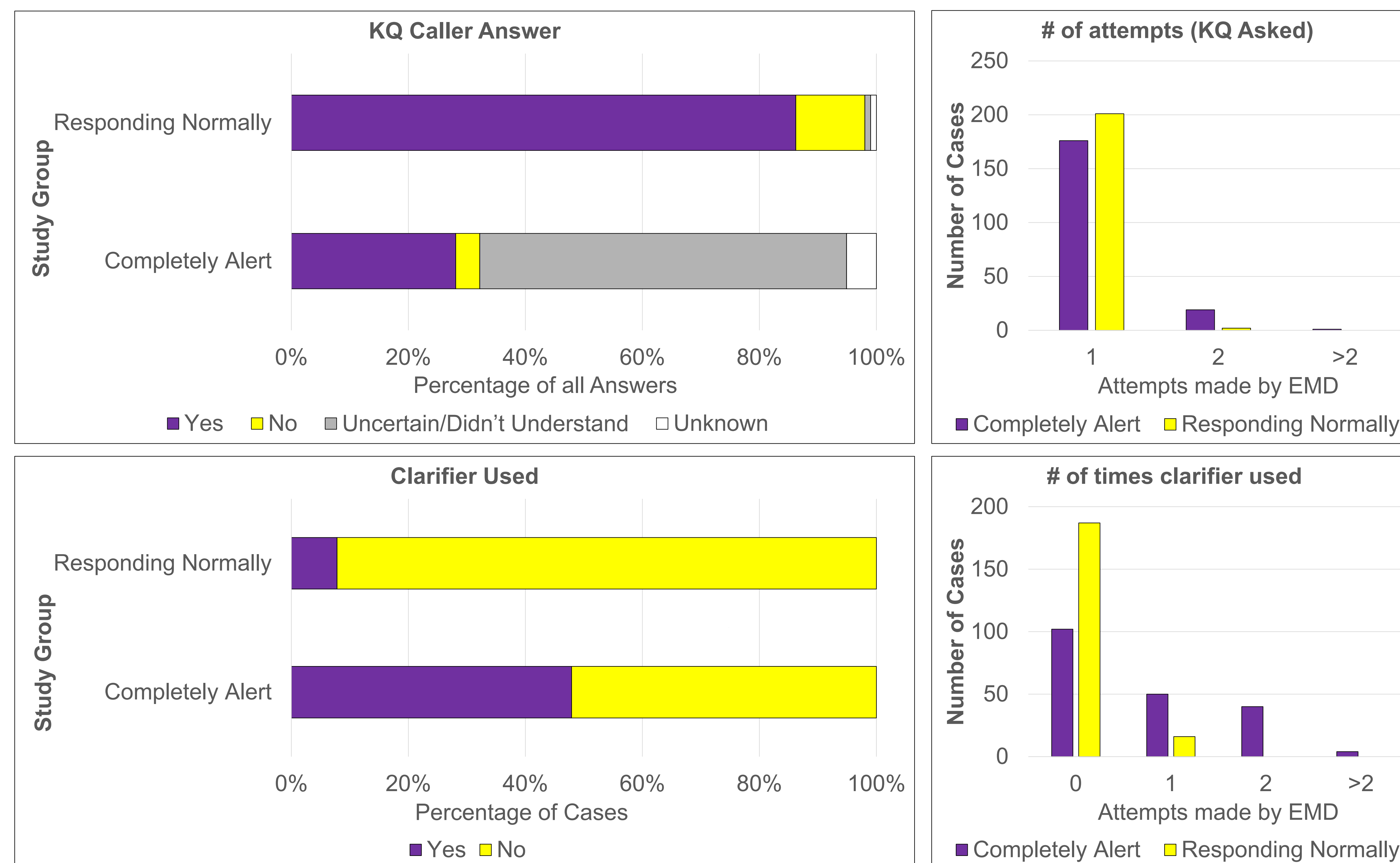
Objectives

The purpose of this study was to (1) quantify the caller’s ability to answer ‘yes’ or ‘no’ to the scripted protocol question “Is s/he completely alert?” on the first attempt, (2) quantify ability to answer “Is he responding appropriately?” (or “responding normally” in certain languages like Portuguese), and (3) compare degree of caller understanding between these study groups.

Materials and Methods

This was a mixed methods descriptive retrospective and prospective study, conducted in Serviço de Atendimento Móvel de Urgência (SAMU), Sao Paolo, Brazil. SAMU is accredited as a Center of Excellence by the International Academies of Emergency Dispatch, Salt Lake City, Utah, USA.

A random sample of audio cases for calls were selected for audit by a certified EMD-Q. Two hundred cases was the target sample size for each study group. For both phases of the study, the caller’s initial answers were recorded on a data collection form, along with any attempts provided by the EMD to clarify the question, and the caller’s answer to each attempt.



Results

Four hundred fifteen audio recordings were obtained. Call backs to check on ambulance status, cancelled calls by caller, and non-compliant cases were excluded (n=16). Therefore, 399 calls were included in the final analysis: 196 pre-test, and 203 post-test.

Average caller age was 51.6. Gender was equally represented in both pre-test (female 46%, male 54%) and post-test (female 48%, male 52%) groups. The majority of calls were 2nd party callers in both pre (82.7%) and post-test (85.5%).

Study groups varied greatly in proportion of ‘Uncertain /Didn’t Understand’ callers’ response to the KQ (62.7% and 0.99%, $p < 0.001$) as well as the caller initially answering ‘yes’ to the KQ (28.1% versus 86.2%, $p < 0.001$). Obtaining the correct answer on the first attempt changed from 89.8% in the pre-test group to 99.0% in the post-test group ($p < 0.001$).

Qualitative notes aggregation of reviewer-recorded comments identified confusion around the word “alert” when asking the KQ in the pre-test group. ‘Talking’ was identified as a major trend in both pre-test and post-test groups. A common clarifying strategy identified in the pre-test group was the EMD explaining the term “alert” to the caller.

Qualitative Notes

Pre-Test Group	Post-Test Group
Notes on Completely Alert KQ*	Notes on Responding Normally KQ*
<ul style="list-style-type: none">• Didn't understand "alert"• Caller didn't let EMD finish Key Question. EMD stopped KQ 3.• EMD combined Key Question with clarifier• EMD used Protocol clarifier instead	<ul style="list-style-type: none">• EMD omitted KQ 3• "Is he responding normally when you talk to him?" (EMD added "when you talk to him")• If you talk to the patient does he answer you?
Notes on Clarifier Use*	Notes on Clarifier Use*
<ul style="list-style-type: none">• If you talk to her/him, does s/he respond normally? ("If you talk to..." added)• EMD used protocol clarifier• EMD didn't clarify the question• EMD explained the meaning of alert (not using clarifier)• EMD didn't need to use clarifier• Caller didn't understand protocol clarifier• Does he talk to you and can answer your questions?• Officer didn't let EMD finish questioning	<ul style="list-style-type: none">• If you talk to him, does s/he answer you normally? ("If you talk to..." added)• Is the patient talking?• EMD didn't clarify even though it was needed

*In order of decreasing magnitude.

Discussion

Overall, the post-test group (responding normally) varied from the pre-test group in:

- Having fewer “Uncertain/Didn’t understand responses to the KQ
- More answers of “yes” to the initial KQ
- Fewer attempts in asking the KQ
- Fewer attempts to clarify the KQ

These findings strongly suggest far less confusion between EMD and caller in the post-test (“responding normally”) group.

Qualitative notes indicated that EMDs in the post-test group often clarified by directing the caller to talk to the patient to assess alertness. This suggests that EMDs find it useful to provide an assessment instruction to callers, rather than simply requesting information. In the pre-test group EMDs often defined the term “alert” to the caller, which was not necessary with the revised phrasing.

Conclusion

These findings provide initial evidence that the existing MPDS protocol KQ “Is s/he completely alert?” should be modified in future versions of the MPDS protocols. Is s/he completely alert (responding appropriately)?” should be modified to “Is he responding normally (completely alert)?”By using more precise language, it may be possible to shorten caller interrogation time and provide more certain information for the EMD as to the patient’s level of consciousness.

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