

Patients' perception on descriptive terminology during medical consultation

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Objective

Risks communication is integral to effective medical consultation enabling patients to make fully informed decisions. Descriptive terminology is often used. However they could have different meanings to different patients. The aim of this study is to identify this variation.

Methods

A patient questionnaire was distributed randomly to patients attending ENT clinic. Patients were asked for their preferences as to how they would receive information regarding likelihood or risk, whether that be percentage form or frequency.

Results

46 completed surveys were returned. 58.6% expressed preference for usage of percentage whilst 30.4% preferred numeric risk.

Discussion

Our study has shown that patients prefer the use of percentages on discussing probabilities during medical consultation. It also highlighted the variations of patient's perception on commonly used terminology.

Conclusion

The study places emphasis on how risk can be communicated to different patient groups. It is our responsibility as clinicians to tailor risk communication to the patient in front of us.

Introduction

Risks communication is integral to effective medical consultation enabling patients to make fully informed decisions. This is essential when consenting patients for surgical procedures and helps contribute to a successful doctor-patient relationship. General Medical Council (GMC) and some of the medical organisations such as, the Royal College of Surgeons, have produced guidance to support doctors for this shared decision making process ^{1,2}. However, a previous survey has shown that doctors have varied preferences of using words or numbers when discussing risk with patients ³. Even within medical communities the use of words or verbal expression on probability have different numeric interpretation ⁴. As a result this could pose a challenge for a patient to understand the descriptive risk, which is important when making an informed decision. In addition, poor communication could in part lead to litigation and reduced patient satisfaction. The cost of clinical negligence for the NHS was over £2 billion between 2017-18 ⁵. In order to reduce potential litigation a high standard of communication is essential especially when risk is being conveyed to a patient.

The aim of the current study is to explore patient preference on the use of percentage or frequency by a medical professional during consultation when discussing probability. Along with that we aim to

find out the variation of their understanding of common descriptive terminology or verbal expression on probability.

Method

A patient questionnaire was designed ([see Appendix](#)) and was randomly distributed to patients attending ENT outpatient clinic over a 4 week period between February and March 2019. Basic demographic details were captured and recorded, i.e. gender and age. Patients were asked for their preferences as to how they would receive information regarding likelihood or risk, whether that be in the form of percentage or frequency. We also explored their understanding of descriptive terminology such as 'very common', 'common', 'uncommon', 'rare' and 'very rare' in terms of percentage frequency.

A questionnaire was designed but a point of relevance is that Middlesbrough possesses some of the worst child literacy rates in the country, which will ultimately translate into the adult population that was surveyed. These poor literacy rates have been matched to lower life expectancy in towns and cities throughout the country. It has been identified that people with lower literacy rates have a 75% increased risk of dying relative to those with high literacy rates ⁶.

Statistical analysis was performed through running chi-squared tests on the categorical data sets.

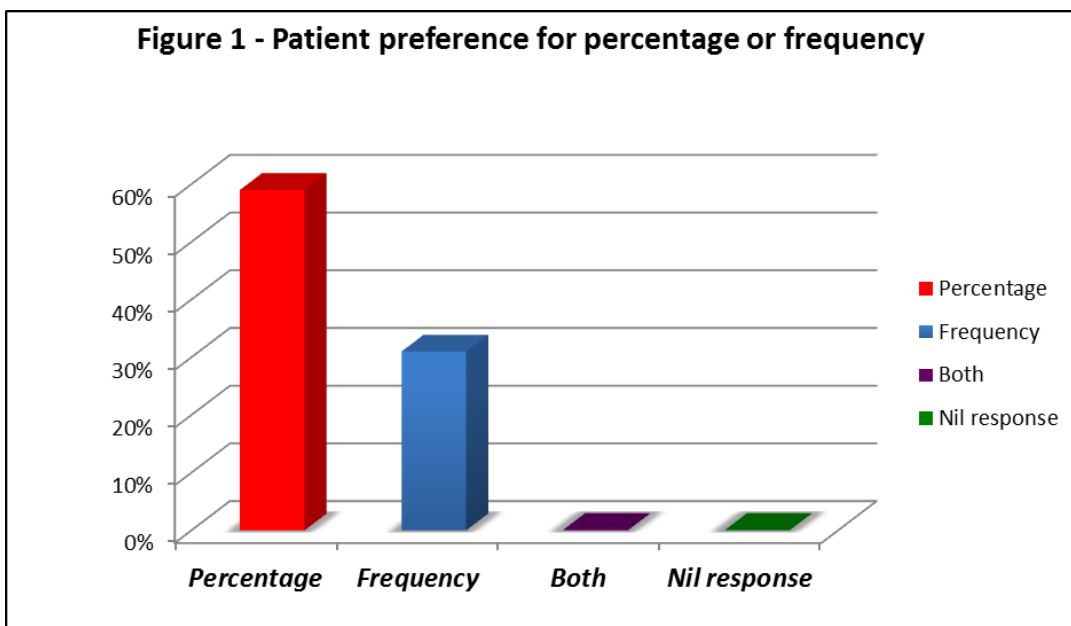
Results

In total 46 surveys were returned. However only 30 of these surveys were completed in entirety. 16 surveys had aspects of the survey that were not fully addressed/filled out by the patient. The results from the incomplete surveys were still included in the data collection however.

There were 27 male and 17 female surveys returned. Two of the surveys did not disclose their gender. Ages ranged from 16 to >70 years. 27 out of the 46 participants (58.6%) expressed preference for usage of percentage whilst 14 participants (30.4%) preferred the use of numeric risk (see *Figure 1.*). Three participants demonstrated neither preference for either frequency or percentage. Whilst two participants provided no response.

On patients being asked to identify percentage frequencies for terms such as 'very common', 'common', 'rare' and 'very rare', a wide variety were identified. For the term 'common' for instance the majority of the subjects identified frequency in percentage as around 80-90%. However for the term 'uncommon' percentage frequency varied wildly from 55% to 10% whilst for the phrase 'very rare' this varied from 0.05% to 20%. This immediately highlights the importance for clinicians to clearly articulate the consequent likelihood of an event to occur as such phrases can be interpreted widely.

Along with that neither age or gender demonstrated statistical significance for preference of percentage or numeric frequency, $p = 0.370$ and 0.361 respectively.



Discussion

Our study has shown that patients prefer the use of percentages by healthcare professionals when discussing probabilities during ENT consultation at James Cook Hospital, Middlesbrough. It also highlighted the variations of patient's perception on commonly used terminology that exist. It has been previously suggested that the use of natural frequency can avoid poor representation of statistic and confusion ⁶. For example using wording like 'one in 1000 patients will develop x risk' as opposed to 0.1% will develop. This is however contradictory to the findings regarding patient preference from the above carried out study. 58.6% of the surveyed patients preferred the use of percentage when discussing probabilities during medical consultation (see *Figure 1.*).

Socioeconomic, education, language and cultural background might have some contributions to their preference but more importantly their actual understanding of probabilities ⁷. For instance if someone works in a position in which they work with numerical values they would be more confident in receiving and processing such information. Hence as clinicians the responsibility has to be placed upon us to tailor the information to the patient appropriately. Our study demonstrated however that neither a particular gender nor age group had a predilection for either percentage or numeric frequency ($p = 0.361$ and 0.370 respectively).

Use of verbal descriptors to discuss clinical risk is not uncommon. Witteman et al. previously showed that less experienced doctors using words whilst the more senior would use numbers ³. In 1999, the European Union produced a guideline on the use of verbal descriptors against set criteria with 'very common' (experienced by more than one in ten patients), 'common' (up to one in ten), 'uncommon' (up to one in 100), 'rare' (up to one in 1000), or 'very rare' (up to one in 10,000). However, the use of wording could have different interpretation by patients as demonstrated in the latter part of the current study. The perception of what was considered as 'rare' showed the largest variation and deviation from actual reality. A standard has been produced by the European Union for these commonly used terminologies with the reference statistics figures. This is also recommended in the RCOG guideline ⁹. It is therefore also important for the doctors to use the terminology correctly. However our study similarly highlighted that when terms such as 'common' or 'very rare' are used they do not always necessarily correspond with an accurate statistical probability or likelihood. One method that patients may be able to relate to is a community risk scale (see *Figure 2.*).

Figure 2. Community Risk Scale ¹⁰

Risk Table (Calman et al. modified)		
Verbal Description	Risk	Risk Description
Very common	1/1 to 1/10	Person in a family
Common	1/10 to 1/100	Person in street
Uncommon	1/100 to 1/1000	Person in village
Rare	1/1000 to 1/10,000	Person in small town
Very rare	Less than 1/10,000	Person in large town

Along with that the value of decision aids cannot be underestimated in helping reiterate the conversation that has already taken place between doctor and patient. They can act both as a visual aid whilst also enabling the patient to revisit the conversation following leaving the clinic.

An approach in which a combination of techniques is used will be of most value alongside having diagrammatic aids such as graphs or charts. However one decides to communicate, it needs to be in such a way that fosters insight and is conveyed simply and effectively whilst being tailored to the patient in front of us.

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Practice Points

- Risk communication is integral to effective medical consultation. Tailoring this to the patient in front of us is vital.
- A patient questionnaire was distributed randomly to patients attending ENT clinic over a 4-week period.
- 58.6% expressed preference for usage of percentage whilst 30.4% preferred numeric risk.
- Patients prefer the use of percentages during medical consultation on discussing risk.

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Appendix

Patient survey

Time required to complete survey: 5-10 minutes

Descriptive terms such as “*high*” risk or “*low*” risk can have different meaning to different patients. However, it is very important when discussing the risks and benefits in a medical setting. This survey aims to help medical professional to learn from patients’ perspective so that a better consultation and patient experience can be achieved.

(Please circle the most appropriate options)

1. **Age** 16 – 25 26-35 36-45
 46-55 56-70 70 and above

2. **Gender** Male / Female

3. What is your prefer format when discussing ‘probability’?

Frequencies / Percentage

(Frequencies would e.g. be five of out 100 people; Percentage would e.g. be 5%)

4. With the prefer format you have chosen in Question 3. From your perspective, can you provide a number next to the below descriptive terminology.

(**For example**, if you have chosen **percentage**, you would write 90%. If you have chosen **frequencies**, you would write 5/100, for the appropriate terms)

Very Common _____

Common _____

Uncommon _____

Rare _____

Very rare _____

-The End - Thank you