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Survey of clinical risk in speech and language therapy practice

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Speech and language therapy, clinical risk, rehabilitation, statistical survey, professional liability

ABSTRACT

Clinical risk management in healthcare is the set of actions to improve the quality of care and ensure patient safety. In recent years, Italy has made progress in patient safety with the sentinel event reporting system, education and training, stakeholder engagement, and examination of legal and insurance issues. Error is unavoidable but should be considered as a "source of knowledge and improvement" to prevent repetition and ensure the safety of healthcare. However, there is no "zero risk" health care area and studies on risk management in rehabilitation are rare.

This study aims to analyze the presence of clinical risk in speech therapy, identifying the most common errors and possible causes. The research was conducted with a cross-sectional statistical survey, using questionnaires administered to speech therapists operating in three Italian regions (Veneto, Campania and Sicily). The study participants were both employed and self-employed speech therapists who worked in public, private, and contracted facilities.

The questionnaire consisted of two sections: the first collected demographic information about the participants, while the second focused on awareness of clinical risks and the frequency of specific errors. Respondents were asked questions about their knowledge of clinical risk in speech therapy, the frequency with which certain errors occur, and other errors they felt were important to report.

The survey results were collected and analyzed using Microsoft Access software and the results were analyzed to measure outcomes. The study sample consisted of 234 speech therapists.

The results of the data analysis collected through Microsoft Access showed that most of the respondents (between 33% and 72%) often encountered errors in their clinical practice in various areas such as clinical evaluation of the patient's main problem, outcome measurement error, speech therapy argumentation, therapy, use of aids, respect for the patient, hygienic-sanitary standards, etc.

The study identified common errors in the clinical practice of speech therapists, including evaluation, treatment planning, and use of aids. These errors are important for the quality of care provided to patients and should be avoided through continuous education and evidence-based clinical practices. The research provides valuable information for the speech therapy community and future research should investigate the factors contributing to training gaps in clinical risk.

INTRODUCTION

In recent decades, health systems in all developed countries have been increasingly challenged by major challenges due to increased economic pressure, the growing complexity of health science and technology, unexpected demographic changes and the rising prevalence and incidence of chronic diseases.[1]

Clinical risk management in healthcare, is the set of various actions implemented to improve the quality of healthcare provision and ensure patient safety.

As early as 2003, the Institute of Medicine pointed out the need for standardisation of patient safety information and how it is managed, with the aim of improving safety levels.

Significant improvements in patient safety have been made in Italy over the past five years with the creation of the National Sentinel Event Reporting System, the implementation of new recommendations and solutions, the development of training, education and patient safety tools, stakeholder promotion, involvement and study of legal and insurance issues. The safety of care, which in Italy has been given even greater weight thanks to the document Legge 8 marzo 2017 n. 24 "Disposizioni in materie di sicurezza delle cure e della persona assistita, nonché in materia di responsabilità professionale degli esercenti le professioni sanitarie"[2], is to be achieved through the set of all activities aimed at the prevention and management of the risk associated with the provision of healthcare services and the appropriate use of structural, technological and organisational resources.

Error is a component inextricably linked to the human condition. Every activity brings with it a dose of risk, and healthcare activity, whether carried out in hospital or territorial settings, carries a particularly high number of risks.

Although it is an ineradicable component, it is important to consider error as a 'source of knowledge

and improvement', in order to avoid the recurrence of the circumstances that generated it and to put in place initiatives capable of presiding over the safety of healthcare.[3]

In order to succeed in this, it is first of all necessary to know which tools to use to contain error, which methods to use for the analysis of different realities, but at the same time it is also necessary to implement a set of actions to make the working condition an 'ideal' place, capable of limiting the consequences created by the occurrence of an error.

Although there are areas particularly affected by adverse events, such as emergency areas and/or psychiatric services, there are unfortunately no 'zero-risk' areas of healthcare activity. And yet, in the face of thousands of publications on risk management in medicine, there are very few studies investigating this aspect in rehabilitation field[4].

If it is true that error is an unavoidable component of human reality[5] and that all health professionals are subject to risks in carrying out their professional practice, we can state that the variability of error even inhabits the professional sphere of Italian speech therapists.

Bertozzi et al. (2007) suggest that the lack of investigations in the rehabilitation field, related to the management of clinical risk and the risks to which health professionals are subject, is due to cultural reasons: the probable lack of awareness on the part of professionals of the broadening of regulatory provisions concerning their responsibility.[6]

Other authors, such as Rodriguez D. (2006), argue that the lack of awareness of risk on the part of health professionals stems either from a negative interpretation of risk or from insufficient involvement in patient safety assurance and clinical quality improvement processes.[7]

Another cause could lie in the relationship between speech therapists and their own mistakes: in every-day practice, making a mistake is, in fact, considered unacceptable and one considers the mistake to be a clear consequence of one's own negligence.[4] The objective of this research is to investigate practitioners' awareness of the concept of risk, also analysing the various types of risks to which practitioners themselves are subjected in their professional practices.

The ability to immediately catch adverse events or near misses is a key element in achieving good results in ensuring patient safety and decreasing the occurrence of errors.

MATERIALS AND METHODS

Today, analysing and managing risk is a way to better address the issue of safety in healthcare organisations.

Clinical risk management refers to a systematic process, encompassing both clinical and management dimensions, that employs a set of methods, tools and actions to identify, analyse, assess and treat risks in order to improve patient safety.[8] We wished to apply this process in the field of speech therapy: the first step was to identify the presence of possible errors, through the detection of unfavourable events, or adverse events, considered to be indicators of the existing risk. The study was carried out with the aim of investigating the existence of clinical risk in speech therapy and to go into the specifics of the errors most frequently encountered in this field and the possible causes of the event.

The study took the form of a cross-sectional observational statistical survey to investigate the existence of clinical risk in speech therapy. The survey was carried out on a sample of professionals working in the field, through the voluntary completion of questionnaires using the Google Forms platform. The questionnaire, shared online in December 2022, for fifteen days, is anonymous and the data cannot be traced back to the individual person, but will only be collected in aggregate form. The study's addressees are speech therapists working in public, private and/or private-concessional facilities, either as employees or free-lance professionals, belonging to the territorial areas of the Veneto, Campania and Sicily Regions. It was decided to use a diversified study sample in order to explore the greatest number of variables, found in clinical speech therapy practice, in the different professional settings, and at the same time to verify any diversity.

Data collection activities

The analysis of the information collected follows the two parts into which the questionnaire was developed. The first section consists of open-ended items aimed at collecting demographic predictors of the sample under study in terms of: gender, region in which the respective professional activity is carried out, place of work and prevalent area of work (developmental, adult or geriatric age).

A second section consists of a list of 12 items, corresponding to different types of errors in speech therapy that could generate a possible adverse event in professional clinical practice.

Each respondent was asked to report:

- awareness of the existence of clinical risk in speech therapy (yes/no);
- how often the single error presented may generate an adverse event in clinical practice (often/sometimes/never);
- a description of other types of errors, not investigated in the questionnaire, which you consider useful to report (open answer).

In the second phase, the results of the analysis were administered and collected in a database. Microsoft Access software was used as a tool to computerise the data. Finally, the analysis of the results and measurement of the outcomes was performed.

The study involved a sample of 234 speech therapists: 198 female (84.61%), 36 male (15.39%).

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SEX	NUMBER	RELATIVE FREQUENCY
Women	198	84,61

SEX	NUMBER	FREQUENCY %
Women	198	84,61
Men	36	15,39
Total	234	100,00

Table 1 - Distribution of the variable 'gender' of the 234 speech therapists included in the study.

Region

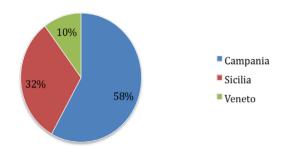


Chart 1 - Distribution of the sample by region

Graph 1 shows the distribution of the survey sample regarding to the Region in which each statistical unit carries out its respective professional activity. The graph clearly shows that the Region which took most part in the questionnaire was the Campania Region (No. 136 speech therapists), followed by the Sicily Region (No. 74 speech therapists) and Veneto Region (No. 24 speech therapists).

Main Workspace

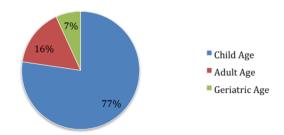


Chart 2 - Distribution of the sample by prevalent area of

Graph 2 shows the distribution of the survey sample regarding to the prevalent area of work. The graph shows that the majority of respondents, No. 181, work with patients of developmental age (77%), No. 37 respondents work with patients of adult age (16%), No. 16 respondents work with patients of geriatric age (7%).

Graph 3 shows the distribution of the survey sample regarding to the workplace in which each individual statistical unit works. The following emerges from the graph: no. 27 interviewees work in integrated home care services (11.53%), no. 46 interviewees work in Local/Provincial Health Authorities (19.65%), no. 39 interviewees work as freelance professionals (16.66%), no. 85 interviewees work in private contracted centres (36.32%), no. 37 interviewees work in private noncontracted

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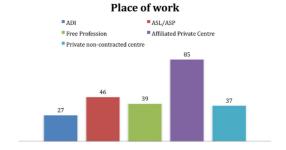


Chart 3 - Distribution of the sample by workplace

Clinical risk awareness in speech therapy

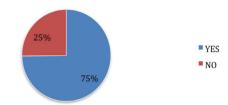


Diagram 4 - Sample distribution in reference to clinical risk awareness in speech therapy

centres (15.81%).

Graph 4 shows the distribution of the sample with reference to awareness of clinical risk in speech therapy. The analysis shows that 175 respondents (75%) were aware of the existence of clinical risk in speech therapy; 59 respondents (25%) were not aware of this issue.

Tool used for data collection

The survey was carried out on a sample of professionals working in the sector, through the voluntary completion of questionnaires using the Google Forms platform. Below is the data recording grid, specially structured by the authors. The starting point was the research on clinical risk in speech therapy, published by Scarton C. (2013)[4]: the study set out to investigate the existence of clinical risk in speech therapy, examining both the characteristics of the errors that most frequently occur in this field and the seriousness of the consequences that adverse events imply for the user of speech therapy services. For each item, the frequency of occurrence was also requested: 'often' (score 3), 'sometimes' (score

2), 'never' (score 1). The absolute frequency of each type of error was calculated; this made it possible to derive the prevalence of the total number of reported adverse events and the total number of professionals interviewed.

Finally, there is an item inviting the respondent to indicate which causes may in fact generate an adverse event, choosing from six categories, plus a possible open response to describe another possiCitation: A. Bua et al. "Investigating Clinical Risk Awareness in Speech Therapy Practice"

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ble cause not expressly indicated and/or to make a comment. The categories in the questionnaire refer to:

- environmental factors:
- individual factors;
- organisational factors;
- management factors;
- training-related factors;
- patient-related factors
- other (open answers).

RESULTS

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The study involved a sample of 234 speech therapists, approximately 84% of whom were female. By means of Microsoft Access software, it was possible

to carry out an analysis of the data collected in respect of the different items.

Below is an in-depth examination of the different items considered:

- 1. "Failure to check the adequacy of the environment": about 33% of the respondents report having frequently encountered the following type of error in their professional clinical practice.
- 2. "Inadequate communication of information to carers/caregivers": about 35% of the respondents report having frequently encountered the following type of error in their professional clinical practice.
- 3. "Incorrect data collection and/or updating in the rehabilitation record": about 33% of the respondents report having frequently encountered

Question	Error	Frequency
1.	Failure to check the adequacy of the environment (e.g. wrong choice of space and/or furniture):	-Often -Sometimes -Never
2.	Inadequate communication of information to carers/caregivers:	-Often -Sometimes -Never
3.	Incorrect data collection and/or updating in the rehabilitation record:	-Often -Sometimes -Never
4.	Lack of confrontation with members of the multidisciplinary team dealing with patient care:	-Often -Sometimes -Never
5.	Error in the clinical assessment of the patient's main problem:	-Often -Sometimes -Never
6.	Error of outcome measurement:	-Often -Sometimes -Never
7.	Errors in the speech and language therapy-related argumentation for treatment planning and scheduling:	-Often -Sometimes -Never
8.	Therapeutic defect error (omission of due treatment, treatment too short, etc.):	-Often -Sometimes -Never
9.	Incorrect use of aids:	-Often -Sometimes -Never
10.	Disrespect for the condition, nationality, social status, sexual preference, cultural identity of the assisted person:	-Often -Sometimes -Never
11.	Error in estimating the expectations, wishes of the assisted person:	-Often -Sometimes -Never
12.	Inadequacy of hygiene standards:	-Often -Sometimes -Never

Table 2 - Survey instrument

quency 'sometimes') to the following type of error encountered in their clinical practice.

n. 62 respondents gave a score of 1 (frequency 'never') to the following type of error encountered in their clinical practice.

Regarding to item 2 "Inadequate communication of information to carers/caregivers", it is observed that:

- n. 81 respondents gave a score of 3 (frequency 'often') to the following type of error encountered in their clinical practice.
- n. 116 respondents gave a score of 2 (frequency 'sometimes') to the following type of error encountered in their clinical practice.
- n. 37 respondents gave a score of 1 (frequency 'never') to the following type of error encountered in their clinical practice.

Regarding to item 3 "Incorrect data collection and/ or updating in the rehabilitation record" it is noted that:

- n. 77 respondents gave a score of 3 (frequency 'often') to the following type of error encountered in their clinical practice.
- n. 127 respondents gave a score of 2 (frequency 'sometimes') to the following type of error encountered in their clinical practice.
- n. 30 respondents gave a score of 1 (frequency 'never') to the following type of error encountered in their clinical practice.

Regarding to item 4 "Lack of confrontation with members of the multidisciplinary team involved in patient care", it is observed as follows:

- n. 101 respondents gave a score of 3 (frequency 'often') to the following type of error encountered in their clinical practice.
- n. 72 respondents gave a score of 2 (frequency 'sometimes') to the following type of error encountered in their clinical practice.
- n. 61 respondents gave a score of 1 (frequency 'never') to the following type of error encountered in their clinical practice.

Regarding to item 5 "Error in the clinical assessment of the patient's main problem" is observed

- n. 138 respondents gave a score of 3 (frequency 'often') to the following type of error encountered in their clinical practice.
- n. 62 respondents gave a score of 2 (frequency 'sometimes') to the following type of error encountered in their clinical practice.
- n. 34 respondents gave a score of 1 (frequency 'never') to the following type of error encountered in their clinical practice.

Regarding to item 6 "Outcome measurement error," it is observed that:

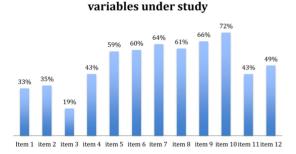
- n. 140 respondents gave a score of 3 (frequency 'often') to the following type of error encountered in their clinical practice.
- n. 68 respondents gave a score of 2 (frequency 'sometimes') to the following type of error encountered in their clinical practice.
- n. 26 respondents gave a score of 1 (frequency 'never') to the following type of error encountered in their clinical practice.

Regarding to item 7 "Error in speech-language ar-

the following type of error in their professional clinical practice. "Failure to deal with members of the mul-

- tidisciplinary team involved in taking care of the patient": about 43% of the respondents report having frequently encountered the following type of error in their professional clinical practice.
- "Error in the clinical assessment of the patient's main problem": about 59% of the respondents report having frequently encountered the following type of error in their professional clinical practice.
- "Outcome measurement error": about 60 6. per cent of the respondents report having frequently encountered the following type of error in their professional clinical practice.
- "Error in speech and language therapy-related argumentation for treatment planning and scheduling": about 64 per cent of respondents report having frequently encountered the following type of error in their professional clinical practice.
- "Therapeutic defect error": about 61% of the respondents report having frequently encountered the following type of error in their professional clinical practice.
- "Incorrect use of aids": about 66% of respondents report having frequently encountered the following type of error in their professional clinical practice.
- 10. "Disregard for the condition, nationality, social status, sexual preference, cultural identity of the person being cared for": approximately 72% of respondents report having frequently encountered the following type of error in their professional clinical practice.
- "Error in estimating the expectations, wishes of the assisted person": about 43% of the respondents report that they have often encountered the following type of error in their professional clinical practice.
- of hygiene 12 "Inadequacy standards": around 49% of respondents report having frequently encountered the following type of error in their professional clinical practice.

Specifically, regarding to item 1 "Failure to check Percentage relative frequency of the



Graph 5 - Relative percentage frequency of the variables under

the adequacy of the environments", we observe that:

- n. 77 respondents gave a score of 3 (frequency 'often') to the following type of error encountered in their clinical practice.
- n. 91 respondents gave a score of 2 (fre-

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gumentation for treatment planning and scheduling", it is noted that:

- n. 150 respondents gave a score of 3 (frequency 'often') to the following type of error encountered in their clinical practice.
- n. 56 respondents gave a score of 2 (frequency 'sometimes') to the following type of error encountered in their clinical practice.
- n. 28 respondents gave a score of 1 (frequency 'never') to the following type of error encountered in their clinical practice.

Regarding to item 8 "Therapeutic defect error", it is observed that:

- n. 142 respondents gave a score of 3 (frequency 'often') to the following type of error encountered in their clinical practice.
- n. 54 respondents gave a score of 2 (frequency 'sometimes') to the following type of error encountered in their clinical practice.
- n. 38 respondents gave a score of 1 (frequency 'never') to the following type of error encountered in their clinical practice.

Regarding to item 9 "Incorrect use of aids", it is observed that:

- n. 154 respondents gave a score of 3 (frequency 'often') to the following type of error encountered in their clinical practice.
- n. 44 respondents gave a score of 2 (frequency 'sometimes') to the following type of error encountered in their clinical practice.
- n. 26 respondents gave a score of 1 (frequency 'never') to the following type of error encountered in their clinical practice.

Regarding to item 10 "Disrespect by condition, nationality, social status, sexual preference, cultural identity of the person assisted", it is noted that:

- n. 169 respondents gave a score of 3 (frequency 'often') to the following type of error encountered in their clinical practice.
- n. 43 respondents gave a score of 2 (frequency 'sometimes') to the following type of error encountered in their clinical practice.
- n. 22 respondents gave a score of 1 (frequency 'never') to the following type of error encountered in their clinical practice.

Regarding to item 11 "Error in the estimation of the expectations, wishes of the person assisted" it is observed that:

- n. 101 respondents gave a score of 3 (frequency 'often') to the following type of error encountered in their clinical practice.
- n. 91 respondents gave a score of 2 (frequency 'sometimes') to the following type of error encountered in their clinical practice.
- n. 42 respondents gave a score of 1 (frequency 'never') to the following type of error encountered in their clinical practice.

Regarding to item 12 "Inadequacy of hygiene standards", it is noted that:

- n. 115 respondents gave a score of 3 (frequency 'often') to the following type of error encountered in their clinical practice.
- n. 81 respondents gave a score of 2 (frequency 'sometimes') to the following type of error

encountered in their clinical practice.

n. 38 respondents gave a score of 1 (frequency 'never') to the following type of error encountered in their clinical practice.

Analysing the errors according to their causes reveals the following:

Distribution of errors by category

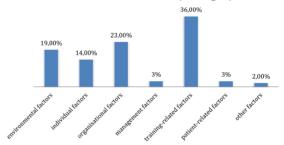


Chart 6 - Distribution of errors by category

- 19% of the respondents believe that errors in speech-language clinical practice are mainly due to environmental factors;
- 14% of the respondents believe that errors in speech-language clinical practice are mainly due to individual factors;
- 23% of the respondents believe that errors in speech-language clinical practice are mainly due to organisational factors;
- 3% of the respondents believe that errors in speech-language clinical practice are mainly due to management factors;
- 36% of the respondents believe that errors in speech-language clinical practice are mainly due to training-related factors;
- 3% of the respondents believe that errors in speech-language clinical practice are mainly due to patient-related factors;
- 2% of the respondents believe that errors in speech-language clinical practice are due to other factors such as: bureaucratic and administrative factors (absence of protocols and/or regulations, lack of guidelines), comfort aspects related to structures (inadequacy of the waiting room or architecture aspectes of clinic). Of these, the 1% claim total absence of risk.

DISCUSSION

This survey provided important information on common errors in the clinical practice of speech and language therapists. The results of the study showed that the most frequent errors concern the clinical assessment of the patient's main problem, the measurement of outcomes, the speechlanguage pathology argumentation for treatment planning and scheduling, the therapeutic defect error and the incorrect use of aids.

In particular, some 59% of the respondents often found errors in the clinical assessment of the patient's main problem, while 60% found (often) errors in measuring outcomes. These findings suggest that these two professional acts are fragile yet crucial aspects in the standardisation of expertise offered by speech therapists in everyday clinical

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practice.

Moreover, the results of the study showed that approximately 64 per cent of the respondents frequently found errors in the speech-language therapy argumentation for treatment planning and scheduling; 61 per cent found (often) errors in the treatment defect and 66 per cent found (often) errors in the incorrect use of aids.

These results could be interpreted as a tendency to lack systematicity in the use of standardisation methods of care.

As per the regulatory provision of Legge n. 24 del 08/03/17, the safety of care is a constituent part of the right to health and is pursued in the interest of the individual and the community, and as per art. 1, paragraph 2, the legislator's intent is clear in emphasising the value of clinical risk management in the provision of healthcare activities involving the use of structural, technological and organisational resources. As per the law in force, the systematisation of the care and treatment pathways addressed to the person is a necessary and finalized process to guarantee the obligation of transparency (ibid.). Furthermore, 72% of the respondents found (often) errors related to the failure to take into account the condition, nationality, social status, sexual preference and cultural identity of the person being assisted. This result might suggest the need for more care to be taken with regard to the internationalisation aspects of the standard offered in everyday speechopaedic practice by promoting principles of adaptability of assessment and therapeutic procedures focused on more inclusive cultures.

The distribution of errors according to the categories of the interviewed sample makes it possible to identify the highest, subjectively determined, causal occurrence rate in the field of education, an element that sifts the importance of a necessary improvement of university education systems specifically geared towards the daily use of Evidence-Based Practice.

In this regard, the EBP approach is well-described by the words of Sacket and co-workers (1996):

Evidence-based medicine is the conscientious, explicit and judicious use of the best current evidence in making decisions about the care of individual patients. The practice of evidencebased medicine means integrating individual clinical experience with the best available external clinical evidence from systematic research.

It does not appear to be a coincidence that the category of errors in the speech-language therapy argumentation for treatment planning and scheduling was perceived to be so deficient by the interviewed

sample. As per Art. 6, comma 1, Legge N. 24, the reference to Art. 590-sexies sanctions the exclusion of punishability of malpractice in the presence of the practitioner's adherence to good practice as found in the Guidelines documents superimposable to the use in the concrete case.

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In general, the results of this study indicate the specific subjective weaknesses encountered by the reference sample in habitual clinical practice that require special attention in order to prevent errors in the practice of the health profession. Continuing education and the systematic adoption of evidence-based clinical practice can help reduce errors in the clinical practice of speech and language therapists and thus ensure the protection of the health of the individual as well as the integrity and effectiveness of the rehabilitation pathway.

CONCLUSION

In conclusion, this study has illustrated relevant information about common errors perceived by respondents in the clinical practice of speech therapists. The results show that the assessment and measurement of outcomes, treatment planning and programming, therapeutic defect error and the use of aids are crucial aspects of speech therapists' clinical practice and show clear signs of fragility upon reconnaissance of the results; therefore, they are professional acts in need of greater executive scrupulousness and study. Similarly for the elements of the training dossier concerning diversity and inclusion in the clinical practice of speech thera-

Overall, this survey provides valuable information for the italian speech and language therapists' community. The information gathered can be used as a monitoring find and source for improving the quality of care provided to patients and for ensuring that speech therapists are able to provide a high quality service.

In order to reduce the occurrence of errors, it is important for professionals to comply with the obligation of continuing medical education and to adopt evidence-based clinical practices. In the future, it would be interesting to conduct further research to investigate the factors that contribute to the presence of educational gaps in the area of clinical risk. Understanding whether the existence of a causal relationship or mere correlation of such factors can be attributed to the heterogeneity of local university education pathways or to the individual practitioner's choices regarding postgraduate and continuing education pathways remains an open challenge.

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