

Work Readiness in Rehabilitation

Work Readiness in Rehabilitation: Questionnaire Design

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ABSTRACT

As they enter the workforce, new university graduates are expected to be equipped with a wide variety of skills and attributes viewed as essential for success in the workplace. Many of these skills and attributes are also important for the success of new graduates of rehabilitation medicine training programs, however they alone are not sufficient for complex and demanding healthcare work environments. While the Work Readiness Scale measures the perceptions of work readiness of new graduates from various backgrounds, no tool is yet available to measure the perceptions of work readiness among new graduates of rehabilitation medicine. To fill this gap, the Work Readiness in Rehabilitation Questionnaire was developed based on the Rehabilitation Work Readiness Framework (RMWRF) consisting of the constructs Foundational Skills (FS), Endeavours, and Applied Skills (AS). The final questionnaire consisted of 78 items with 4 – 8 items representing each theme of the RMWRF. The questionnaire was field tested with students and new graduates of Occupational Therapy, Physical Therapy, and Speech-Language Pathology from the University of Alberta (n = 116). New graduates were found to have responded significantly differently than first year students and second year students. Responses were also examined by level of the RMWRF; the construct FS was rated significantly higher than the AS construct but FS was not significantly higher than Endeavours, as was expected. Results of this field test revealed the questionnaire is an internally consistent tool which can be used to measure students' and new graduates' self-perceptions of skills relevant for work readiness.

INTRODUCTION

The area of work readiness focuses on new graduates of university degrees who are entering professional employment for the first time (Caballero & Walker, 2010). Work readiness has been described as the extent to which new graduates possess the skills and attributes that prepare them for success in the workplace (Caballero & Walker, 2010). The degree to which new graduates are ready for work is thought to be indicative of their performance in their first job (Caballero & Walker, 2010). The dissatisfaction of some employers with the performance of their new graduate employees indicates that some graduates are insufficiently prepared to work in their field (Masole & van Dyk, 2016). Field-specific knowledge and skills alone are not sufficient to make new graduates work ready (Masole & van Dyk, 2016). In the rapidly changing modern workplace, there is a growing demand from employers for graduates who possess a set of basic skills that make them work ready (Caballero & Walker, 2010).

The field of work readiness is concerned with the diverse range of “generic,” “core,” or “basic” skills which are viewed as important for success in almost any job (Caballero & Walker, 2010). Studies have identified an assortment of these basic skills as important for the success of graduates from various backgrounds. Caballero and Walker (2010) conducted a review of the work readiness literature and summarized the skills and attributes identified by the literature as important for graduate success. The skills that were identified most often include: communication skills, teamwork, critical thinking, problem-solving, creativity, interpersonal skills, motivation, initiative, organizational skills, self-awareness / self-knowledge, adaptability, and leadership.

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Recently, the constructs of emotional intelligence and psychological capital were found to strongly predict work readiness (Masole & van Dyk, 2016). Emotional intelligence has been defined as “the ability to perceive and express emotion, assimilate emotion in thought, understand and reason with emotion, and regulate emotion in the self and others” (Mayer, Salovey, & Caruso, 2000 as cited in Gignac, 2010). Alternatively, emotional intelligence has been described as the ability to purposefully use emotional processes to adapt to and shape one’s environments (Gignac, 2010). Psychological capital refers to one’s positive psychological state of development. It is characterized by confidence to take on challenging tasks, optimism about one’s current and future success, persevering towards goals, and resilience when faced with setbacks to success (Masole & van Dyk, 2016). Masole & van Dyk (2016) propose that emotional intelligence allows new graduates to develop stronger interpersonal relationships in the workplace and psychological capital smooths new graduates’ transition to the workplace.

In addition to a range of generic skills, graduate identity is also viewed as highly important for graduate success. Graduate identity has been described as a self image which allows feelings of adequacy and satisfaction in the performance of one’s professional role (Jackson, 2016). Jackson (2016) found that younger undergraduates had a more difficult time developing their graduate identity than mature students, and may need extra support in doing so. It was reasoned that while mature students are more likely to form a positive graduate identity due to their life and work experience, younger students found this more difficult due to their lack of experience (Jackson, 2016).

Measuring Work Readiness

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At the time of writing, the only published instrument which specifically aims to measure work readiness is the Work Readiness Scale (WRS) (Caballero, Walker, & Fuller-Tyszkiewicz, 2011). The WRS is a self-rating instrument which aims to evaluate the basic skills of university graduates. To develop the WRS, Caballero et al. (2011) conducted focus group interviews with participants from various backgrounds (human resources professionals and recent graduates of varying undergraduate degrees). Thematic analysis of the results yielded ten main constructs from which the items of the WRS were developed: motivation, maturity, personal growth/development, organizational awareness, technical focus, interpersonal orientation, attitudes to work, problem solving, adaptability, and resilience. The WRS was validated by a pilot test with participants from a wide range of disciplines including engineering, science, commerce, business, accounting, finance, and law. Factor analysis of the pilot test data revealed four factors, which were labelled Personal Characteristics, Organizational Acumen, Work Competence, and Social Intelligence (Caballero et al., 2011). Personal Characteristics encompasses resilience, adaptability, and personal development. Organization Acumen comprises motivation, maturity, organizational awareness, personal development, and attitude to work. Work Competence includes technical focus, motivation, and problem-solving. Finally, Social Intelligence consists of interpersonal orientation and adaptability.

The WRS has since been adapted for healthcare, for use with newly registered nurses (also known as “graduate nurses”), specifically (Walker, Storey, Costa, & Leung, 2015). This adaptation, called the WRS-GN, reworded or removed many of the original WRS items, depending on their relevance for nursing. It also added nine new healthcare-relevant items. Factor analysis revealed that the four factors of the original WRS were retained after

adaptation for graduate nurses (Walker et al., 2015). These results indicate that generic skills important for a wide range of disciplines may also be factors in healthcare contexts, but that additional skills or competencies may be necessary to fully explore work readiness in healthcare settings.

Work Readiness in Rehabilitation Disciplines

As they enter the workforce, new graduates of rehabilitation medicine – occupational therapy (OT), physical therapy (PT), and speech-language pathology (SLP) – must be prepared for increasingly complex and demanding healthcare environments. Clinical practice in rehabilitation medicine requires extensive discipline-specific knowledge, and a wide range of skills and competencies. Generic skills identified as important for work readiness of university graduates of various backgrounds may not be sufficient to describe work readiness for graduates of rehabilitation medicine disciplines.

Work Readiness in Speech-Language Pathology. Newly graduated SLPs must be prepared to work with a vast range of clients and to work effectively within specific work contexts. One study found that only sixty-nine percent of new SLPs felt sufficiently confident in their professional skills after completion of their training program (Brumfitt, Enderby, & Hoben, 2005).

In focus group interviews, a recurring theme from senior SLP managers was the importance of a set of core, transferable skills (e.g., time management; interpersonal skills; organization with the work context) (Brumfitt et al., 2005). Brumfitt et al. (2005) asked SLP managers to describe the qualities of an ideal new SLP graduate; the data represented four major themes: “the good communicator” (e.g., good listener; asks for help), “the good

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practitioner” (e.g., clear decision making; strong clinical skills), “the good person” (e.g., flexible; learns from mistakes), and “the good administrator” (e.g., familiar with policy; knows professional boundaries). Another study identified four generic competencies based on interviews with SLP students and clinical educators: Reasoning, Communication, Lifelong Learning, and Professionalism (McAllister, Lincoln, Ferguson, & McAllister, 2011).

The results of these studies overlap substantially with the “generic” skills identified in studies of work readiness for new graduates of varying backgrounds. A unique contribution provided to the literature is “the good practitioner” theme identified by Brumfitt et al. (2005), which is likely relevant across many healthcare fields, not only SLP.

Work Readiness in Occupational Therapy and Physical Therapy. Adam, Gibson, Strong, and Lyle’s (2011) review of the literature of OTs and PTs in work related practice yielded a variety of skills required by the successful OT or PT, including communication skills (inter-professional, conflict resolution, interpersonal, report writing, self-reflection); job and activity analysis; and teaching, training, and presenting (Adam et al., 2011). Their review also identified a range of professional behaviours important for new OT and PT graduates, including: confidentiality, accountability, professional language, flexibility, consideration of ethical issues, and understanding boundaries.

Adam et al. (2011) generated 9 concept statements regarding the skills new OT and PT graduates require for clinical practice from interviews with participants in occupational health fields, including OTs, PTs, employers, regulators, and insurers. The authors then ranked the statements from most to least relevant (summarized): 1) communication skills; 2) a wide range of work experience; 3) a supervised induction period; 4) maturity and judgement; 5) “skills in

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anatomy, musculoskeletal assessment, treatment and movement analysis;” 6) a “broad view of function, task analysis and work processes” (OT only); 7) role overlap between OTs and PTs; 8) a sound foundation of discipline-specific knowledge and skills; and 9) understanding of roles and functions of colleagues.

Another study investigating skills required for clinical practice for new PT graduates conducted focus group interviews with PT employers and found three main themes emerged: Professionalism, Perspective, and Confidence (Sole, Claydon, Hendrick, Hagberg, Jonsson, & Harland (2012). Professionalism referred to a wide range of personal attributes valued by employers, including good communication skills, empathy, energy, flexibility, and work ethic. The theme Perspective meant employers valued new graduates who understood their role in the bigger picture, and understood their responsibilities in the workplace, the community, and the larger health context. Finally, Confidence referred to the importance of having confidence in oneself as a therapist (i.e., confidence in one’s skills and knowledge and confidence that one is clinically competent as a therapist).

Many of these skills overlap with the “generic” skills and attributes identified in the work readiness literature, particularly the various components of Sole and colleagues’ (2012) Professionalism and Perspective themes, and Adam and colleagues (2011) themes of communication, maturity, and understanding of roles/functions of colleagues. Two themes identified by these studies stand out as particularly relevant for all rehabilitation disciplines; Confidence (Sole et al., 2012) and a solid foundation of discipline-specific knowledge and skills (Adam et al., 2011).

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Work Readiness in Rehabilitation Medicine. An interdisciplinary study in the Faculty of Rehabilitation Medicine at the University of Alberta conducted focus group interviews to gain insight into the concept of work readiness for new graduates of rehabilitation disciplines. The participants were clinicians (employed for more than a year in their field), new graduates (employed for less than a year in their field), employers, and regulators, from OT, PT, and SLP. The results of the focus groups yielded constructs and themes which the participants identified as impacting work readiness of new graduates. The focus group results were used to create discipline-specific models of work readiness for SLP (Suleman & McFarlane, 2016), OT (Schmitz et al., 2017) and PT (Hall et al., 2017). In addition, responses from all participants were included in a separate analysis, resulting in the Rehabilitation Medicine Work Readiness Framework (RMWRF) (Suleman et al., 2017) (Figure 1). The RMWRF consists of three related broad constructs: 1) Foundational Skills; 2) Endeavours; and 3) Applied Skills. Each of the constructs comprises a number of themes.

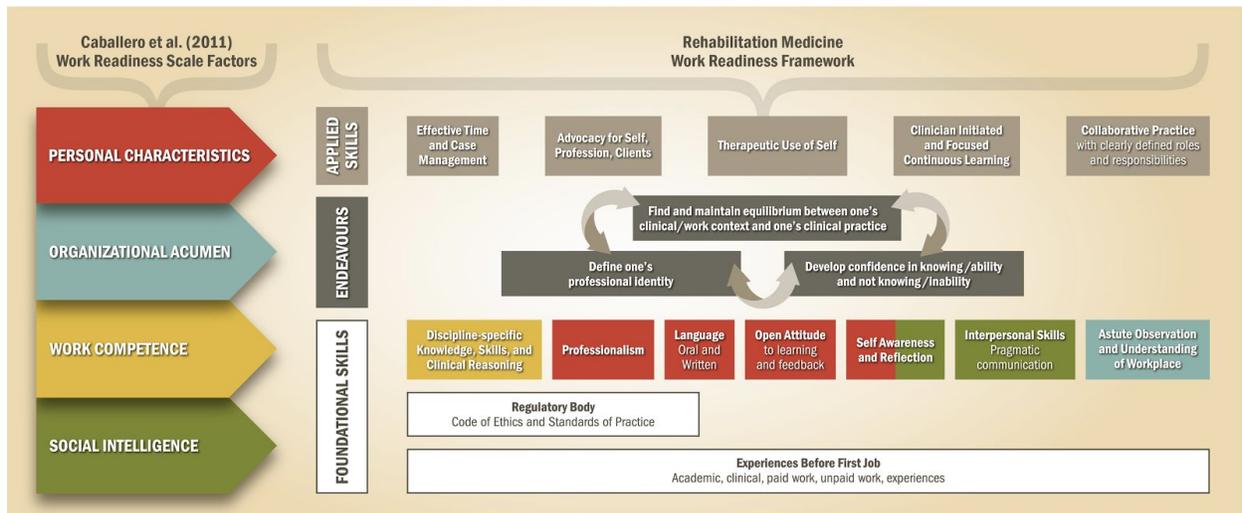


Figure 1. Rehabilitation Medicine Work Readiness Framework (Suleman et al., 2017)

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Foundational Skills. Foundational skills were described as facilitating the accomplishment of the Endeavours (Suleman et al., 2017). Table 1 lists and defines the themes included in the Foundational Skills construct.

Table 1. Foundational Skills

Foundational Skill Themes	Definition
Regulatory Body	The regulatory body sets the code of ethics and standards of practice for the profession.
Discipline-specific Knowledge, Skills, and Clinical Reasoning	“The knowledge and skills that an individual possesses to practice safe, ethical, holistic, client-centered care.”
Professionalism	“Ethical and appropriate behaviours for individuals in a professional role.”
Language and Communication	“An individual’s ability to speak and write clearly and effectively for a variety of audiences.”
Open Attitude to Learning and Feedback	“An individual’s receptiveness to suggestions and willingness to engage in self-improvement activities.”
Self-awareness and Reflection	“An individual’s introspective abilities or ability to critically think about themselves and their behaviours.”
Interpersonal Skills and Pragmatic Communication	“An individual’s ability to relate to other people and the individual’s ability to understand and use nonverbal and implicit information about another person’s emotional state and/or needs.”
Understanding of Workplace Environment and Dynamics	“An individual’s ability to process information about the work environment, including information about the individuals within that environment and the relationships between those individuals.”

(Suleman et al., 2017)

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Foundational skills are acquired through the individual’s experiences before entering the training program (academic experience (i.e., undergraduate degree), work experience, volunteer experience, and general life experiences), as well as experiences during the training program. In the training program, academic experience and clinical experience provide the discipline-specific knowledge and skills, and support the development of other foundational skills.

Endeavours. Endeavours are complex and interrelated processes which students may engage in during clinical placements and new graduates continue to develop as they transition into the workplace (Suleman et al., 2017). Table 2 describes each of the themes included in the Endeavours construct.

Table 2. Endeavours

Endeavour	Definition
Define one’s professional identity.	<ul style="list-style-type: none"> - Self-identifying as a professional - Awareness and acceptance of privilege, responsibility, and accountability - Adopting a group identity that is shared with other members of one’s discipline - Personal characteristics and one’s approach to rehabilitation - Identity as an evolving construct (i.e., identity changes in different contexts and over time)
Develop confidence in knowing/ability and not knowing/inability.	<ul style="list-style-type: none"> - Appropriate confidence in one’s discipline-specific knowledge and skills in order to work both independently and in collaboration with other professionals - Self-awareness and confidence to identify gaps in one’s discipline-specific knowledge and

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	skills, and seek out means to enhance them
Find and maintain equilibrium between clinical/work context and clinical practice.	<p>Circumstances in the workplace that challenge a therapist’s ability to conduct client-centered care in her/his ideal manner. Examples include:</p> <ul style="list-style-type: none"> - “The competing priorities of other disciplines and members of a multidisciplinary team” - Financial or economic demands of the organization or management” - “Unrealistic client expectations” - “Clients who have different perspectives and make different decisions than the clinician because of personal characteristics or cultural backgrounds”

(Suleman et al., 2017)

Applied Skills. Finally, development of the Applied Skills is supported through a clinician’s engagement with the Endeavours (Suleman et al., 2017). Table 3 lists and defines the themes associated with the Applied Skills construct.

Table 3. Applied Skills

Applied Skill	Definition
Effective Time and Case Management	Effectively managing one’s time; prioritizing and organizing client cases appropriately.
Advocacy for Self, Profession, and Clients	Actively engaging in advocacy activities to promote oneself as a clinician, the profession, and one’s clients.
Therapeutic Use of Self	Using one’s own person and one’s own strengths (i.e., skills and abilities) to apply to clinical practice (e.g., to connect to a client and to be part of the therapeutic relationship with the client).
Clinician Initiated and Focused Continuous	Taking initiative to find training in an area

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Learning	where one does not have knowledge and/or ability.
Collaborative Practice with Clearly Defined Roles and Responsibilities	Establishing a clear understanding of each team member's roles and responsibilities, and understanding one's own unique contribution to a team.

(Suleman et al., 2017)

Comparison of RMWRF Themes and WRS Factors. There is some overlap between the four factors of the WRS (Caballero et al., 2011) and the themes of the RMWRF. These overlaps are represented in the color coding of the RMWRF themes in Figure 1. Personal Characteristics, as described by Caballero and colleagues (2011), overlaps with numerous themes of the RMWRF including Professionalism, Language and Communication, Open Attitude to Learning and Feedback, and Self-awareness and Reflection. Organizational Acumen corresponds well to the RMWRF theme Understanding of Workplace. Work Competence overlaps with the RMWRF theme Discipline-specific Knowledge, Skills, and Clinical Reasoning. Finally, the factor Social Intelligence matches well with the RMWRF themes Self-awareness and Reflection, and Interpersonal Skills and Pragmatic Communication.

The four factors of the WRS overlap well with seven of the Foundation Skills themes as described above, however they do not cover the code of ethics and standards of practice set by the regulatory body, nor do they make any mention of experiences before entering the program or experiences in the professional program, the mechanisms by which rehabilitation medicine students and graduates build their foundational skills. Furthermore, the WRS factors do not address any component of the Endeavours or Applied Skills. As such, the WRS will capture some, but not all, of the constructs and themes identified as important for work

readiness of rehabilitation medicine students. Therefore, a tool developed specifically for rehabilitation medicine may yield more relevant information about work readiness in these disciplines.

Measuring WR in Rehabilitation. In response to the absence of an instrument to measure work readiness of rehabilitation students and professionals, a self-rating questionnaire for rehabilitation disciplines was developed, which was modelled on the WRS. This questionnaire was based on three discipline-specific work readiness frameworks (OT, PT, and SLP) and required substantial modifications to the existing WRS. The resulting Rehabilitation Scale was administered to a sample of current students in the Faculty of Rehabilitation Medicine at the University of Alberta as a pre/post-testing measure for an online module about work readiness. However, further work by the research team led to the RMWRF, a holistic rehabilitation model, as opposed to the discipline-specific models on which the Rehabilitation Scale was based. As such, it was determined that a new version of the questionnaire was needed to attempt to capture students' perceptions of their development relative to themes contained in the RMWRF.

METHODS

Questionnaire Development

The development of the questionnaire was guided by the RMWRF, through a process recommended by Johnson and Morgan (2016). The questionnaire developers were the writer (a graduate student) and the principal investigator (a professor in the Department of Communication Sciences and Disorders). First, the existing items from the Rehabilitation Scale

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were mapped to the themes from the RMWRF. Items that seemed to fit in individual or in multiple themes from the RMWRF were identified. Items that did not fit well with any of the themes were also identified. Next, additional items were generated for the themes to which few items had matched. Some of these additional items were derived from existing Competency Framework documents, such as the University of Alberta's Health Sciences Education and Research Commons' (n.d.) "Interprofessional Learning Pathway Competency Framework," and "The Use of Reflection in Medical Education: AMEE Guide No 44" (Sandars, 2009). Following this initial process, there were 247 items. Next, all items were reviewed for both strength of fit with their corresponding theme and uniqueness of the item to avoid overlap. Items that were weak fits were identified and removed. Of items within a category that were too similar, the best item was chosen, leaving 129 items remaining with the number of items per theme ranging from four to twelve.

Expert Review. The questionnaire items from the Rehabilitation Scale which were originally identified as not matching well to any theme of the RMWRF were included in the expert review, to provide the expert reviewers with the opportunity to identify matches that the questionnaire developers may have missed. The resulting 141 questionnaire items were sent to six academics, who were involved in development of the RMWRF. The purpose of the expert review was to solicit feedback regarding the match between the questionnaire items and the themes in the RMWRF, in order to ensure that the questionnaire items appropriately represented all components of each theme. The experts completed a survey which required them to select the best one or two theme matches for each questionnaire item. As the themes

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between levels of the RMWRF build on each other and increase in complexity, some overlap in the themes identified as a match was expected.

Responses from the expert review were reviewed by the questionnaire developers. Any item which was matched to a specific theme by fifty percent or more of the experts was considered as a possible item for the final version of the questionnaire. Of those, items with high agreement between experts (5 to 6 experts agreeing) were marked as the first choices, and then items which the questionnaire developers deemed the best matches were selected. Items with less agreement (4 of 6 experts agreeing) were chosen when they were deemed necessary to address all aspects of the theme. At this stage some wording changes were made to improve the correspondence of an item to its intended theme.

Based on a high degree of overlapping responses, the themes Language & Communication and Interpersonal Skills & Pragmatic Communication, as well as the themes Regulatory Body and Professionalism, were combined for the purposes of the questionnaire development. For these combined themes, the items that were marked as the first choices were those which had the highest level of additive agreement. Based on this process, the questionnaire was reduced to 77 items, with four to eight items representing each theme.

Editorial Review. Once the final questionnaire items were reviewed by the researchers, the questionnaire underwent an editorial review by four academics to solicit feedback regarding the clarity of the questionnaire items. This feedback resulted in some additional wording changes when producing the final version of the questionnaire.

Scale Development. The scale used in the questionnaire was developed in accordance with the guidelines outlined by Johnson and Morgan (2016). A six point rating scale (1 – 6),

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anchored by *Strongly Disagree* to *Strongly Agree* was chosen, where each point in the scale was labelled with both a numeric and a categorical label. An even scale was chosen (without a neutral midpoint) because neutral responses can make it difficult for survey items to distinguish between respondents with different underlying judgements. While a neutral option was not necessary, it was determined a “not applicable” option was needed, particularly for the first-year student respondents who may not have experienced all the situations described by the questionnaire items. *Does not apply* was included adjacent to the six point scale, written in all capital letters to distinguish it from the response continuum.

Pilot Test. After the wording of the questionnaire items and the survey scale were both finalized, two sample participants completed a pilot test of the questionnaire to ensure that completion of the questionnaire was seamless and that there were no errors in using the Google Form or in the items themselves.

Materials

The final Work Readiness in Rehabilitation questionnaire contained 78 items – the 76 items previously described plus one item to measure the respondents’ self-rating of overall WR and one open-ended item asking participants to define professional identity . The questionnaire first collected demographic information to ascertain each respondent’s home department (OT, PT or SLP) and year of study or graduate status. Depending on the response for year of study, the respondents were either asked how many months they had been working (new graduates only) or in how many weeks of clinical placement had they participated (all other respondents). Participants were then asked to rate their overall readiness to work (“Overall, I am ready to work and practice effectively in my field”). This was followed by the remaining 76 self-rated

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items in a randomized order, with 8 items appearing per page, excepting the last page which contained 4 items. Finally, after the last 4 self-rated items, there was the open-ended item “I define professional identity as.” Appendix 1 lists all of the questionnaire items and the themes on which they were based. The questionnaire was available online through Google Forms for one week.

Participants

Participants were recruited through email lists from the OT, PT, and SLP programs in the Faculty of Rehabilitation Medicine at the University of Alberta. Invited participants represented three groups: first year students, second year students, and new graduates. New graduates were defined as clinicians who had been practicing for less than one year. 116 participants completed the questionnaire. Refer to Table 4 for a summary of participants.

Table 4. Summary of participants

		Level of Training					Group Total
		First Year Students	Second Year Students	Third Year Students	New Grads	MSc/PhD	
Training Program	Occupational Therapy	14	11	0	15	0	40
	Physical Therapy	7	12	3	8	0	30
	Speech-Language Pathology	7	21	2	15	1	46
Group Total		28	44	5	38	1	

The one MSc/PhD student and the five third year students were excluded from the data analysis due to the small sample size of their groups.

RESULTS

Item Analysis

Frequency distributions and descriptive statistics (mean, median, mode, and standard deviation) were generated for each of the self-rated items. Frequency distributions are useful to show whether participants have used all of the response options on the scale (Johnson & Morgan, 2016). In order to investigate the quality of the items, the spread of responses was examined for each item. Items for which participants used few items of the response scale are not as useful because they are less likely to distinguish between groups of participants based on level of experience. Table 5 summarizes the spreads of the frequency distributions for each of the self-rated questionnaire items (excluding the overall WR item).

Table 5. Spread of Frequency Distributions of Individual Items

Frequency Distribution Spread	Item	Construct
6 point spread 44.7% of total (n = 67) items	My life experiences before entering the professional program affect my clinical practice	FS
	I advocate for resources/services to meet clients' needs and/or improve service provision	AS
	I need to understand an organization's vision, mission, and values in order to practice effective client-centered care	FS
	I actively promote my client populations' inclusion in society	AS
	I never post about clients or work/school on social media	FS
	I am actively involved in the development and/or implementation of programs to promote my profession	AS
	I am comfortable in clinical situations of ambiguity and uncertainty	E

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I plan criteria for client discharge as part of my treatment plan	AS
My volunteer experience before the professional program contributes to my clinical competence	FS
I am confident in my ability to work independently in a complex clinical setting	E
I appropriately prioritize tasks as immediate, short-term, or long-term	AS
I seek new opportunities to collaborate with professionals from other disciplines	AS
I have the clinical skills necessary for my role as a clinician	FS
My academic experiences before the professional program contribute to my clinical competence	FS
I routinely review recent journal articles relevant to my field	AS
I know when and how to seek help to solve clinical and interpersonal problems	FS
I advocate for myself as being competent to work with a particular client or client population	AS
I am responsible and accountable as a practicing clinician	FS
I understand the procedures and protocols for my work or placement site and how they affect my day to day work	FS
I can describe risks and benefits of assessment and treatment options to my client	FS
I have a plan for ongoing professional development	AS
I take action when there is a lack of inclusivity, respect, or trust on a team	AS
I deliver effective presentations to both small and large groups	FS
My work experience in unrelated areas contributes to my clinical competence	FS

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	I never talk about clients in my personal life, even with my significant other or closest friends	FS
	I advocate for clients and communities where there are barriers to accessing services	AS
	I am effective in clinical situations where there are multiple demands	AS
	Clinical reasoning is one of my strengths	FS
	I know the standards of practice of my discipline	FS
	I am able to find a balance between what I would like my clinical service to be and the limitations of my work site	E
	I have sufficient discipline-specific knowledge for my role as a clinician	FS
	I seek training opportunities beyond what my academic program / workplace requires	AS
	I employ strategies for addressing personal biases	FS
	Writing clearly and concisely is one of my strengths	FS
5 point spread	I have the interpersonal skills to respond to, and engage with, any client	FS
26.3% of total items	I recognize gaps in my knowledge/skills and develop a learning plan to fill them	FS
	I prioritize client cases to manage my caseload appropriately	AS
	I find a balance when another discipline's goals for a client compete with my goals	E
	I actively solicit corrective feedback for my clinical development	FS
	I tend to procrastinate on tasks that do not have a set timeline	AS
	I seek feedback from a variety of sources, including clients and families	FS

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	I respect the choices of my clients, even if I do not agree with them	E
	I provide sufficient information to my clients so they can advocate and obtain services for themselves	AS
	I take action in situations that involve a breach in confidentiality*	FS
	I am comfortable learning from my mistakes	FS
	I recognize the impact of diversity in relationships and modify my communication accordingly	FS
	I recognize ethical issues and identify how to prevent or resolve them*	FS
	I advocate for representation from professions that are missing from a care team	AS
	I learn as much, or more, from constructive criticism as I do from positive feedback*	FS
	I recognize and respond appropriately to clients' non-verbal communication	FS
	I develop holistic care plans for my clients	FS
	I assess my knowledge/skills and determine if they are sufficient for a particular clinical activity	E
	I can describe how my interpersonal skills impact each of my therapeutic relationships	AS
	I successfully navigate situations in which my client displays a strong emotion (e.g., sadness, anger)	AS
4 point spread	When I encounter a difficult problem, I identify a variety of ways to solve the problem	E
23.7% of total items	I respect and maintain workplace hierarchy and procedures when managing conflict	FS
	I recognize when I experience a lapse in clinical empathy and respond to repair and restore my relationship with the client	AS

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	I balance client-centered care with limited resources in the work setting	E
	I utilize appropriate strategies and aids to minimize communication barriers	FS
	I determine what my client needs from me within the client-therapist relationship and respond appropriately	AS
	I share concerns with my clients in a constructive and respectful manner	FS
	I negotiate overlapping/shared care responsibilities with my colleagues	AS
	I adapt effectively to the organizational structure of the settings in which my discipline works	FS
	I effectively integrate feedback from colleagues, supervisors, and clients into my professional practice	FS
	I advocate for the client as a member of the care team	AS
	My professional identity adapts in different contexts	E
	My professional identity is an important part of how I see myself	E
	My personal characteristics influence my clinical practice	E
	After a challenging situation I reflect on how I could have improved the interaction	FS
	I recognize when others are conducting themselves unprofessionally	FS
	I seek out ways to enhance my knowledge and improve my skills	AS
	I negotiate clinical goals with other members of the interdisciplinary team	AS
3 point spread	My professional identity is constantly evolving	E
5.3% of total items	I maintain appropriate boundaries in my relationships with clients	FS

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	I use communication skills to build an empathetic relationship with my clients	FS
	I use past experiences and reflection about clinical activities to influence my clinical practice	FS

*Non-continuous distribution; responses skipped “2 – Disagree”
 Notes: FS = Foundational Skills, E = Endeavours, AS = Applied Skills

Overall Work Readiness. Participants were asked to rate their agreement with the statement “Overall, I am ready to work and practice effectively in my field.” Participants used all 6 points of the scale when responding to this item, with a mean of 3.45 and a median of 4 (*slightly agree*), indicating a slight negative skew (see Figure 2). The mode was 4, meaning that most respondents slightly agreed with the statement. Within the new graduate group, the mean was 4.47, and the median and mode were both 5 (*agree*). Two of the 38 new graduates responded with *strongly agree*.



Figure 2. Frequency distribution for the item “Overall, I am ready to work and practice effectively in my field.”

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Does not apply responses. There were many items for which a high number of participants responded using the *does not apply* option. Table 6 lists in descending order the items for which a high number (greater than 20%) of participants responded *does not apply*.

Table 6. Items with a High Percentage of *Does Not Apply* Responses

Items (in descending order)	% of Total Responses	Distribution of respondents (%)		
		1st years	2nd years	New grads
I take action in situations that involve a breach in confidentiality	50.0%	34.5	41.8	23.6
I prioritize client cases to manage my caseload appropriately	39.1%	51.2	39.5	9.3
I negotiate clinical goals with other members of the interdisciplinary team	36.4%	60.0	30.0	10.0
I advocate for clients and communities where there are barriers to accessing services	31.8%	42.9	45.7	11.4
I advocate for representation from professions that are missing from a care team	30.0%	60.6	30.3	9.1
I am able to find a balance between what I would like my clinical service to be and the limitations of my work site	30.0%	54.5	42.4	3.0
I find a balance when another discipline's goals for a client compete with my goals	30.0%	54.5	36.4	9.1
I negotiate overlapping/shared care responsibilities with my colleagues	28.2%	37.7	22.6	9.7
I plan criteria for client discharge as part of my treatment plan	28.2%	67.7	25.8	6.5
I take action when there is a lack of inclusivity, respect, or trust on a team	25.5%	25	50	25
I balance client-centered care with limited resources in the work setting	25.5%	37.9	28.6	3.6

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I understand the procedures and protocols for my work or placement site and how they affect my day to day work	24.5%	70.4	14.8	14.8
I develop holistic care plans for my clients	24.5%	85.2	11.1	3.7
I recognize when I experience a lapse in clinical empathy and respond to repair and restore my relationship with the client	23.6%	53.8	26.9	19.2
I am responsible and accountable as a practicing clinician	21.8%	79.2	20.8	0
I advocate for myself as being competent to work with a particular client or client population	20.9%	60.9	30.4	8.7

Level of Experience

Participants' mean self-ratings (i.e., the mean of all of the responses from each participant) were calculated and a one-way ANOVA was performed to examine if there were differences between how first year students, second year students, and new graduates responded when all items were considered. Levene's test of homogeneity of variances was not significant, meaning the assumption of homogeneity of variances was met. A significant effect was found for participants' mean self-ratings between groups ($F(2, 107) = 4.976, p = .009$). Post hoc testing using Tukey's HSD found that there were significant differences between both first year students ($M = 4.535, SD = 0.499$) and new graduates ($M = 4.837, SD = 0.449$) ($p = .018$), and second year students ($M = 4.579, SD = 0.387$) and new graduates ($p = .025$). There was no significant difference found between first year students and second year students ($p = .910$).

RMWRF Analysis

The mean score across all participants was calculated for each item and a one-way ANOVA was performed to examine if there were differences between responses on

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questionnaire items which represented Foundational Skills, Endeavours, and Applied Skills.

Levene's test was not significant, meaning the assumption of homogeneity of variance was met.

A significant effect was found for the mean item scores between levels of the RMWRF ($F(2, 73) = 4.136, p = .020$). Post hoc testing using Tukey's HSD revealed that there was a significant difference between Foundational Skills ($M = 4.771, SD = 0.450$) and Applied Skills ($M = 4.415, SD = 0.422$) ($p = .015$). There was not a significant difference between Foundational Skills and Endeavours ($M = 4.658, SD = 0.678$) ($p = .761$) nor between Endeavours and Applied Skills ($p = .330$).

Internal Consistency

Cronbach's alpha was calculated as a measure of internal consistency. Cronbach's alpha is the correlation of the test with itself (Tavakol & Dennick, 2011). A high alpha value indicates all the questionnaire items are correlated with each other (Tavakol & Dennick, 2011). The Work Readiness in Rehabilitation Questionnaire had a Cronbach's α value of 0.929, indicating strong internal consistency.

It should be noted that the questionnaire included one open-ended question in addition to the 77 self-rated items. This item was not analyzed as part of this study.

DISCUSSION

Analysis of Item Quality

One of the main objectives of a field test is to analyze the quality of the items (Johnson & Morgan, 2016). In order to do so, the frequency distribution of the responses was examined for each item of the questionnaire. Ideally, the questionnaire responses would use the entire

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response scale (Johnson & Morgan, 2016). If the majority of the respondents do not use the full range of the response scale, then the item may not effectively distinguish between respondents (Johnson & Morgan, 2016). Furthermore, if the majority of responses are clustered toward the positive end of the scale, the item would not allow for growth to be measured through retesting.

For about 70% of the items, respondents used 5 or 6 points of the response scale. This means that these items would be able to easily distinguish between participants based on their level of experience, which is a strong indicator of item quality. For almost all of the items which used 5 points of the response scale, the response that was not used was the negative anchor of the scale – *strongly disagree* – indicating a bias towards to the positive end of the scale. Interestingly, there were three items for which the response that was not used was 2 – *disagree*, meaning that responses jumped from 1 – *strongly disagree* to 3 – *slightly disagree*. It is unclear why this occurred.

Respondents used only four points of the response scale for fewer than 25% of the total items; for all of these items, the responses were clustered toward the positive end of the scale. While ideally respondents would use all points of the scale, the use of 4 of 6 points (66.7%) means more than half of the response distribution was used and is better than the average number of response scale points used in other studies (Dawes, 2008 as cited by Johnson & Morgan, 2016). Finally, there were four items, contributing to only about 5% of the questionnaire (“My professional identity is constantly evolving,” “I maintain appropriate boundaries in my relationships with clients,” “I use communication skills to build an empathetic relationship with my clients,” and “I use past experiences and reflection about clinical activities

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to influence my clinical practice”), for which respondents used only three points of the scale. In the case of these items, participants chose only the responses on the positive end of the scale – *slightly agree, agree, and strongly agree*. It is less likely that these items covering only three points of the response scale will be able to effectively distinguish between participants based on their level of experience. Furthermore, for the items with a 3 point spread, it will be very difficult for those items to measure growth upon retesting given that the participants already rated themselves quite highly. Johnson and Morgan (2016) suggest discarding or revising items for which responses do not cover the full response scale. Given the nature of these items, it is unlikely that many health professionals would respond with a disagree response option, so it may be worthwhile to retain these items because rating oneself low on them could be indicative of significant difficulty in the theme(s) being measured. Rather than discarding them, attempts should be made to reword these items in order to elicit an increased distribution of responses. Since these items all elicited responses on the positive end of the response scale, stronger wording could be used to attempt to elicit some responses on the negative end of the scale. For example, the item “I maintain appropriate boundaries in my relationships with clients” could be changed to “I *always* maintain appropriate boundaries in my relationships with clients.” The addition of an extreme word like “always” may increase the distribution of the responses.

Does Not Apply Option. It was determined in the course of developing the questionnaire that the response scale needed to include a *does not apply* option. The *does not apply* option was intended for use by first year students who had not yet participated in a clinical placement, hence would not be able to effectively answer many of the clinical practice

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questions. It was presumed that second year students and new graduates should not have a need to use the *does not apply* option, or at least should use it very rarely, as they have all had at least some clinical experience.

There were many items for which a high number of participants responded using the *does not apply* option. There were sixteen items for which the percent of total participants who responded *does not apply* was greater than twenty percent. The item which the most participants answered *does not apply* was "I take action in situations that involve a breach in confidentiality;" 50.0% of participants responded that this item did not apply to them. Of the 50%, only 34.5% were first year students, 41.8% were second year students, and the remaining 23.6% were new graduates. There were also two other items for which second year students were the group with the highest *does not apply* response rate: "I take action when there is a lack of inclusivity, respect, or trust on a team" (50% of responses were from second years) and "I advocate for clients and communities where there are barriers to accessing services" (45.7%). For the other thirteen items, first year students comprised the group which had the highest *does not apply* response rate, as expected. However, even for those items, there were surprisingly high numbers of second year students and new graduates who responded *does not apply*.

It is not completely clear why such high numbers of second year students and new graduates responded to items using *does not apply*. All second year students had at least six weeks of clinical placements to consider when responding to the items. New graduates especially, who have taken part in many months of clinical placements, should presumably be able to respond to all the items. The high rates of *does not apply* responses may have been due

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to the nature of the situations described by the items. Some of these situations do not occur frequently in clinical interactions (e.g., “I take action in situations that involve a breach in confidentiality”), so it is quite possible that new graduates and second year students had not yet experienced them. However, the skills to navigate these uncommon, but complex, situations are important for success in clinical work settings, so these items may be important to retain in the questionnaire.

During refinement of the questionnaire, future researchers may reconsider the wording of the items with very high rates of *does not apply* responses from second year students and new graduates. Alternatively, another solution to consider for future versions of the questionnaire would be to distribute different versions of the questionnaire to the different participant groups. For instance, a version for new graduates could omit the *does not apply* option.

RMWRF Constructs

One of the main objectives of this field test was to investigate if responses differed between levels (constructs) of the RMWRF. The hypothesis was that participants would rate themselves higher on items belonging to the construct Foundational Skills than they would on items pertaining to Endeavours and Applied Skills. The results showed that participants did rate themselves significantly higher on Foundational Skills items ($M = 4.771$) than Applied Skills items ($M = 4.416$). Foundational Skills was rated higher than Endeavours ($M = 4.658$) as well but it was not statistically significant. Ratings for Endeavours and Applied Skills were not significantly different. It was expected that Endeavours and Applied Skills may not be different from each other since both are higher levels of the RMWRF and require more discipline-specific

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experience to engage in than Foundational Skills. However, it was thought that ratings for Endeavours would have been significantly lower than Foundational Skills, given the greater complexity of the Endeavours. This lack of a significant difference between Foundational Skills and Endeavours could be attributed to differences in how the participant groups responded to the different constructs. For example, if new graduates rated themselves fairly equally between all three levels of the RMWRF, and first year students rated themselves much higher on Foundational Skills than Endeavours and Applied Skills, the result when all participants were considered together could show no significant difference between Foundational Skills and Endeavours. Future analysis should include a two-way ANOVA to examine interactions between level of experience (participant groups) and levels of the RMWRF.

Level of Experience

The other main objective of the field test was to examine if the questionnaire distinguished between participants based on level of experience. The hypothesis was that new graduates would rate themselves higher than second year students, who in turn would rate themselves higher than first year students. New graduates ($M = 4.837$) did indeed rate themselves significantly higher than second year students ($M = 4.579$). Second year students rated themselves higher than first year students (4.535) but the difference was not statistically significant.

First and Second Year Students. There are a few possible explanations for the lack of significant difference between first and second year students. It may be due to a difference in self-identity between identifying as a student (first and second year students) or as a professional (new graduates). Alternatively, it may represent the amount of clinical experience

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obtained by the respondents at the time the questionnaire was distributed. First year students had basically no clinical experience at the time of distribution (0-1 week) and second year students' experience in clinical placements ranged from six to twenty-six weeks, depending on the professional program. New graduates, comparatively, had obtained many more months of experience in clinical placements than second year students, and many of them were already employed in their field for up to four months at the time of distribution. Finally, the lack of significant difference may actually be due to differences between responses of participants from different professional programs. Further analysis could examine if there are interaction effects between participants' level of experience (year of study / graduate status) and their professional program.

Due to differences in how the professional programs are structured, participants from different programs, who were classified as having the same level of experience (the same year of their program or new graduate status), actually had vastly different amounts of clinical experience at the time they participated in the questionnaire. This difference was most pronounced for second year students, who had between six (PT students) and twenty-six weeks of clinical placement experience (SLP students). This meant that many of the second year students were actually more similar to the first year students than their second year counterparts. Furthermore, some new graduates had already been working for three to four months at the time of participation in the questionnaire (SLPs) while others had not begun working yet (OTs and PTs). In the future, it may be better to group participants based on their amount of clinical or work experience, rather than the year of their program, which introduces substantial variation within groups.

First Year Students and New Graduates. Despite the statistical significance, it is surprising that there was such a small difference between the mean total scores of the first year students and the new graduates. This result may have occurred because the constructs of the RMWRF were weighted unequally. Specifically, the Foundational Skills construct (the highest rated construct across all participants) was weighted more heavily than the other two constructs. To examine this further, future analysis should include a two-way ANOVA to analyze if interaction effects exist between levels of experience and the constructs of the RMWRF.

This unequal weighting occurred because there were an unequal number of items for each of the constructs of the RMWRF. Each of the constructs contained a different number of themes and there was a roughly equal number of items per theme (with exceptions described below). This had the effect of the Foundational Skills construct being weighted the highest, followed by Applied Skills, and finally Endeavours was weighted the lowest. Future versions of the questionnaire could consider restructuring to equate the number of items across the constructs of the RMWRF, rather than attempting to equate the number of items across the themes. Alternatively, the items belonging to the different constructs could be weighted differently in order to weigh the three constructs equally.

As mentioned above, not all of the themes of the RMWRF were represented by the same number of items. The majority of the themes were represented by four to five items, however there were three themes – Advocacy, Language/Interpersonal Skills, and Professionalism/Regulatory Body – which were represented by seven or eight items each. The result was that these three themes were weighted more heavily than the others in terms of the overall questionnaire score. This occurred for Advocacy because it is a complex theme for which

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many quality items were developed to represent its various components. Future versions of the questionnaire should consider reducing the number of items representing Advocacy to be more in line with the other themes. For Language/Interpersonal Skills and Professionalism/Regulatory Body, it was decided in the course of development that they could be represented by about twice the number of items as the rest of the themes because each is the combination of two original themes from the RMWRF. However, future research should consider if these combination themes should indeed be represented by twice the items as the other themes or if their number of items should be reduced to the range of the others. On the one hand, given that they are the combination of two themes it may make sense for them to be represented by more items. On the other hand, the decision was made to combine the themes because there was substantial overlap between them, so it may not be appropriate for their number of items to be twice the amount of the other themes. Furthermore, these combination themes being represented by twice the items as the other themes exacerbated the heavier weighting of the Foundational Skills construct, as described above.

Work Readiness of New Graduates. Across all items, new graduates' mean work readiness score was 4.84 (between *slightly agree* and *agree*) (SD = 0.45) and ranged from 3.75 to 5.53. Of the new graduates, 39.5% had a mean score ranging from 5 (*agree*) to 6 (*strongly agree*). Since scores of 5 and 6 corresponded to *agree* and *strongly agree* on the response scale, this can be interpreted as 39.5% of new graduates perceive themselves as "work ready," all items considered. This can be compared to the single item which asked participants to rate their overall readiness to work, which had a mean of 4.47 (between *slightly agree* and *agree*) (SD = 0.82) and a range of 2 (*disagree*) to 6 (*strongly agree*). Considering only the scores of 5

and 6, this can be interpreted as 57.9% of new graduates are “ready to work.” These scores are lower than the ones reported by Brumfitt et al. (2005) who found that 69% of new SLPs felt sufficiently confident in their skills after completion of their professional program. However, their finding only takes into consideration new SLPs, compared to all new rehabilitation medicine graduates considered in this sample. Furthermore, Brumfitt et al. (2005) asked participants if they felt “sufficiently confident” in their skills, which participants may be more inclined to agree with than agreeing that they are overall ready to work in their field.

When asked directly, a higher number of participants rated themselves as “ready to work” than the mean total item scores would indicate. This may indicate that overall, participants felt work ready but when given specific situations, they did not respond in ways which indicate work readiness. However, the range and variability were greater for the overall work readiness item than for mean total item score. This means that there was more variability in the range of views among new graduates of their own work readiness than actual variability in the skills of new rehabilitation graduates.

Limitations and Future Directions

Future research should consider conducting a factor analysis to compare the themes of the RMWRF on which the questionnaire items were based to the ones that come out of the data. Given that the questionnaire items were based on individual themes, each falling under a broader construct, it would be interesting to see if the factors that would come out of the data aligned with the themes, the constructs, or perhaps neither. For instance, the WRS was originally based on ten themes, which were reduced to four factors through factor analysis of the pilot test data (Caballero et al., 2011). The nature of the RMWRF involves significant overlap

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across the constructs; for instance, Applied Skills are built on Foundational Skills. Factor analysis might reduce these overlapping themes into singular themes, which would eliminate the ability to compare data across constructs.

Preliminary psychometric analysis indicates this scale has high internal consistency. Future analysis could address other psychometric properties such as test-retest reliability and construct validity. Future research could also investigate the sensitivity and specificity of the items.

Lastly, the current questionnaire is only able to measure participants' self-perceptions. The current version includes many items that are subjective, based on the participants' own thoughts and attitudes. In the future, the questionnaire could be adapted for use by clinical educators or supervisors/mentors in the workplace by including only items that measure behaviours.

CONCLUSIONS

The objective of this study was to develop and field test the first version of the Work Readiness in Rehabilitation Questionnaire with a sample of first year students, second year students, and new graduates from the rehabilitation disciplines of occupational therapy, physical therapy and speech-language pathology. The resulting questionnaire was an internally consistent measure useful for measuring students' and new graduates' self-perceptions of a set of skills relevant for work readiness in their field.

There are various implications for use of this tool. The university training program could administer the questionnaire to students at various points of the professional program to

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measure areas of strength and weakness and to track skills growth. Eventually, norms could be developed, which would allow the objective identification of students lacking in specific skills development. In this way the tool would guide professors and/or clinical educators in the remediation of students' skill deficits. For students lacking in certain areas, focused training or learning opportunities could be sought by the student or arranged by the student's department. In the future, an adaptation of the questionnaire for use by clinical educators could be used as an assessment tool to measure students' clinical placement outcomes. Finally, this tool could be used by employers to obtain an indicator of work readiness for new graduate hires. It could both guide the focus of orientation and highlight the need for additional professional development opportunities for new graduate employees.

REFERENCES

- Adam, K., Gibson, E., Strong, J., & Lyle, A. (2011). Knowledge, skills and professional behaviours needed for occupational therapists and physiotherapists new to work-related practice. *Work, 38*, 309 – 318. <https://doi.org/10.3233/WOR-2011-1134>
- Brumfitt, S. M., Enderby, P. M., & Hoben, K. (2005). The transition to work of newly qualified speech and language therapists: Implications for the curriculum. *Learning in Health and Social Care, 4*(3), 142 – 155. <https://doi.org/10.1111/j.1473-6861.2005.00091.x>
- Caballero, C., & Walker, A. (2010). Work readiness in graduate recruitment and selection: A review of current assessment methods. *Journal of Teaching and Learning for Graduate Employability, 1*(1), 13 – 25.
- Caballero, C., Walker, A., & Fuller-Tyszkiewicz, M. (2011). The Work Readiness Scale (WRS): Developing a measure to assess work readiness in college graduates. *Journal of Teaching and Learning for Graduate Employability, 2*(2), 41 – 54.
- Gignac, G. E. (2010). On a nomenclature for emotional intelligence research. *Industrial and Organizational Psychology, 3*, 131 – 135.
<https://doi.org/10.1111/j.1754-9434.2010.01212.x>
- Hall, M., McFarlane, L., Suleman S., Bostick, G., Paslawski, T., & Zarski, C. (2017). Ready, set, go! Exploration of work-readiness for occupational therapy students. Poster session presented at World Congress for Physical Therapists, Cape Town, South Africa.
- Health Sciences Education and Research Commons (n.d.). *Interprofessional Learning Pathway Competency Framework*. Retrieved from https://sites.ualberta.ca/~hsercweb/viper/Competency_Framework.pdf

Work Readiness in Rehabilitation

- Jackson, D. (2016). Modelling graduate skill transfer from university to the workplace. *Journal of Education and Work*, 29(2), 199 – 231. <https://doi.org/10.1080/13639080.2014.907486>
- Johnson, R. L., & Morgan, G. B. (2016). *Survey scales: A guide to development, analysis, and reporting*. New York, NY: The Guilford Press.
- Masole, L., & van Dyk, G. (2016). Factors influencing work readiness of graduates: An exploratory study, *Journal of Psychology in Africa*, 26(1), 70 – 73.
- McAllister, S., Lincoln, M., Ferguson, A., & McAllister, L. (2011). A systematic program of research regarding the assessment of speech-language pathology competencies. *International Journal of Speech-Language Pathology*, 13(6), 469 – 479. <https://doi.org/10.3109/17549507.2011.580782>
- Sandars, J. (2009). The use of reflection in medical education: AMEE Guide no 44. *Medical Teacher*, 31(8), 685-695. <https://doi.org/10.1080/01421590903050374>
- Schmitz, C., Esmail, S., McFarlane, L., Hall, M., Bostick, G., Kanuka, H., Paslawski, T., Zarski, C., Martin, B., & Suleman, S. (2017). Ready, set, go! Exploration of work-readiness for occupational therapy students. Poster session presented at the Canadian Association of Occupational Therapist National Conference. Charlottetown, PEI.
- Sole, G., Claydon, L., Hendrick, P., Hagberg, J., Jonsson, J., & Harland, T. (2012). Employers' perspectives of competencies and attributes of physiotherapy graduates: An exploratory qualitative study. *New Zealand Journal of Physiotherapy*, 40(3), 123 – 127.
- Suleman, S., & McFarlane, L. (2016). Preparing for success in the workplace: Translating perspectives into educational and advocacy resources. Seminar presented Speech-Language Pathology and Audiology Canada National Conference, Halifax, NS.

Work Readiness in Rehabilitation

Suleman, S., McFarlane, L., Bostick, G., Hall, M., Paslawski, T., Schmitz, C., & Zarski, C. (2017).

Work readiness in rehabilitation medicine: A model of development. Manuscript in preparation. University of Alberta, Edmonton, Canada.

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, 2, 53 – 55. <http://doi.org/10.5116/ijme.4dfb.8dfd>

Walker, A., Storey, K. M., Costa, B. M., & Leung, R. K. (2015). Refinement and validation of the Work Readiness Scale for graduate nurses. *Nursing Outlook*, 63(6), 1 – 7.

<http://dx.doi.org/10.1016/j.outlook.2015.06.001>

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APPENDIX: QUESTIONNAIRE ITEMS

RMWRF Construct	RMWRF Theme	Questionnaire Item
Overall Work Readiness	N/A	Overall, I am ready to work and practice effectively in my field
Foundational Skills	Experiences Before Entering Program	My life experiences before entering the professional program affect my clinical practice
		My academic experiences before the professional program contribute to my clinical competence
		My volunteer experience before the professional program contributes to my clinical competence
		My work experience in unrelated areas contributes to my clinical competence
	Discipline-specific Knowledge, Skills, and Clinical Reasoning	I have the clinical skills necessary for my role as a clinician
		I have sufficient discipline-specific knowledge for my role as a clinician
		Clinical reasoning is one of my strengths
		I can describe risks and benefits of assessment and treatment options to my client
		I develop holistic care plans for my clients
	Professionalism / Regulatory Body	I never post about clients or work/school on social media
		I maintain appropriate boundaries in my relationships with clients

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		I take action in situations that involve a breach in confidentiality
		I am responsible and accountable as a practicing clinician
		I recognize ethical issues and identify how to prevent or resolve them
		I recognize when others are conducting themselves unprofessionally
		I never talk about clients in my personal life, even with my significant other or closest friends
		I know the standards of practice of my discipline
	Language and Communication / Interpersonal Skills and Pragmatic Communication	I share concerns with my clients in a constructive and respectful manner
		I use communication skills to build an empathetic relationship with my clients
		I have the interpersonal skills to respond to, and engage with any client
		I recognize the impact of diversity in relationships and modify my communication accordingly
		I deliver effective presentations to both small and large groups
		I utilize appropriate strategies and aids to minimize communication barriers
		Writing clearly and concisely is one of my strengths

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		I recognize and respond appropriately to clients' non-verbal communication
Open Attitude to Learning and Feedback		I actively solicit corrective feedback for my clinical development
		I seek feedback from a variety of sources, including clients and families
		I effectively integrate feedback from colleagues, supervisors, and clients into my professional practice
		I am comfortable learning from my mistakes
		I learn as much, or more, from constructive criticism as I do from positive feedback
	Self-awareness and Reflection	
		I know when and how to seek help to solve clinical and interpersonal problems
		I employ strategies for addressing personal biases
		After a challenging situation I reflect on how I could have improved the interaction
		I use past experiences and reflection about clinical activities to influence my clinical practice
Understanding of Workplace Environment and Dynamics		I need to understand an organization's vision, mission, and values in order to practice effective client-centered care
		I understand the procedures and protocols for my work or placement site and how they affect my day to day work.

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		I adapt effectively to the organizational structure of the settings in which my discipline works
		I respect and maintain workplace hierarchy and procedures when managing conflict
Endeavours	Define one's professional identity.	My professional identity is constantly evolving
		My professional identity adapts in different contexts
		My professional identity is an important part of how I see myself
		My personal characteristics influence my clinical practice
		I define professional identity as:
	Develop confidence in knowing/ability and not knowing/inability.	When I encounter a difficult problem, I identify a variety of ways to solve the problem
		I am confident in my ability to work independently in a complex clinical setting
		I assess my knowledge/skills and determine if they are sufficient for a particular clinical activity
		I am comfortable in clinical situations of ambiguity and uncertainty
	Find and maintain equilibrium between clinical/work context and clinical practice.	I balance client-centered care with limited resources in the work setting
		I respect the choices of my clients, even if I do not agree with them
		I find a balance when another discipline's goals for a client compete with my goals

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		I am able to find a balance between what I would like my clinical service to be and the limitations of my work site
Applied Skills	Effective Time and Case Management	I prioritize client cases to manage my caseload appropriately
		I plan criteria for client discharge as part of my treatment plan
		I tend to procrastinate on tasks that do not have a set timeline
		I appropriately prioritize tasks as immediate, short-term, or long-term
		I am effective in clinical situations where there are multiple demands
	Advocacy for Self, Profession, and Clients	I advocate for resources/services to meet clients' needs and/or improve service provision
		I actively promote my client populations' inclusion in society
		I am actively involved in the development and/or implementation of programs to promote my profession
		I advocate for the client as a member of the care team
		I provide sufficient information to my clients so they can advocate and obtain services for themselves
		I advocate for myself as being competent to work with a particular client or client population

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		I advocate for clients and communities where there are barriers to accessing services
	Therapeutic Use of Self	I determine what my client needs from me within the client-therapist relationship and respond appropriately
		I successfully navigate situations in which my client displays a strong emotion (e.g., sadness, anger)
		I can describe how my interpersonal skills impact each of my therapeutic relationships
		I recognize when I experience a lapse in clinical empathy and respond to repair and restore my relationship with the client
	Clinician Initiated and Focused Continuous Learning	I routinely review recent journal articles relevant to my field
		I have a plan for ongoing professional development
		I seek out ways to enhance my knowledge and improve my skills
		I seek training opportunities beyond what my academic program / workplace requires
	Collaborative Practice with Clearly Defined Roles and Responsibilities	I seek new opportunities to collaborate with professionals from other disciplines
		I negotiate overlapping/shared care responsibilities with my colleagues
		I advocate for representation from professions that are missing from a care team
		I negotiate clinical goals with other members of the interdisciplinary team

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		I take action when there is a lack of inclusivity, respect, or trust on a team
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