Useabiliy and utility of the WASP II

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Clinical evaluation, usability and utility of the Work Ability Screening Profile II (WASP II)

Abstract

Introduction

The Work Ability Screening Profile (WASP) was conceptualised and developed by occupational therapists at the University of Durban Westville to provide a basic vocational screening assessment. Its purpose was to screen competence in generic/general work skills which reflected performance in activities essential to workplace participation relevant to the South African context. The assessment was revised in 2005 and renamed the WASP II.This study considered the clinical evaluation, useability and utility of the WASP II in order to inform further revision.

Method

A cross sectional survey was used to gather data from occupational therapy clinicians familiar with or using the WASP II in clinical practice.

Results

A sample of 70 respondents indicated the WASP II was suitable to assess current work ability and production speed with a variety of clients with physical and mental health dysfunction. Ten of the 12 subtests were used by at least 40% of the time by the 28 respondents who use the WASP II frequently. These respondents reported good to adequate useability in terms of cost, sensitivity to clients' educational level and ease of understand instructions, incorporation into clinical practice contexts while supporting clinical reasoning and judgement. The accommodation of clients' language and provision of standard scores were indicated as inadequate. Utility was considered adequate for all aspects including discrimination of moderate to severe dysfunction, informing the choice of other assessments as well as supporting vocational rehabilitation intervention. The WASP II outcomes were also understood by other service providers, employers, referring parties as well as clients.

Conclusion

While the WASP II was considered appropriate for use in the South African context and has adequate useability and utility, some subtests need to be updated and revised in terms of the standard times and content validity for current practice in the work environment.

INTRODUCTION

Vocational rehabilitation has been included in the Compensation for Occupational Injuries and Diseases Amendment Bill in 2020[1] and makes provision for funding for these services for workers injured on duty by the Department of Employment and Labour. In South Africa, these services are offered by occupational therapists[2] to a diverse client base due to multicultural, educational, political and socio-economic diversity within the country. This presents challenges for assessing generic work, skills due to a lack of locally standardised work assessments.

It is essential that a work assessment for dysfunction related to work, or to prevent dysfunction from occurring is customised for each individual, be it preparing for the worker role, returning to work or being considered for an alternate work role. This is due to the individual nature of clients, their work capacity and work interests, experiences and capacities and illness/disability limitations related to various job demands. Relevant general or basic work skills or prevocational skills need to be screened to gain an initial indication of the individual's work abilities to select appropriate vocational assessments to evaluate specific work skills[3].

The need for a basic vocational screening assessment to screen generic work skill competencies reflecting performance in activities essential to workplace participation[4] relevant for the South African context was expressed by occupational therapists in KwaZulu Natal as far back as 1995[5]. The high cost of available work assessment screening instruments, most of which had been standardised in the global north, could not be justified in the light of other health and rehabilitation needs. In addition, the imported tests were not found to be culturally or language impartial for the local population served. Clinicians believed that rather than just observing general activity participation as a screening for work ability, they required a more contextually relevant, valid and reliable screening tool with evidence-informed scores. This was essential to substantiate findings in reports, and the indications to further support more comprehensive assessment[5].

Led by Sue Barnard, a team of lecturers and students from the University of Durban Westville (now University of Kwa-Zulu Natal (UKZN)), clinicians from KwaZulu Natal's public sector occupational therapy departments treating patients with psychiatric, neurological and physical dysfunction, as well as occupational therapists in private practice considered experts in the field of vocational rehabilitation collectively developed a series of job samples in subtests. These subtests considered components necessary for work ability screening. Approximately three weeks was spent constructing a series of job samples which included basic work tasks typical within the

South African work context[5], which collectively became the prototype named the Work Ability Screening Profile (WASP I)[5].

General work requirements including memory, concentration, decision making, judgement, organising and planning, motor abilities, co-ordination, dexterity, following of instructions and dynamic postures, which were later reflected in the activities component of the International Classification of Functioning, Disability and Health (ICF)[6], were determined for each of the tasks included in the WASP I screening battery. Tasks to evaluate some psychosocial components such as client perceptions of stress, time management and issues in their work situations were also included in the battery.

Scores for both ability (competence) and speed (productivity) were compiled. Ability was judged on the number of errors made during the task execution. Speed was measured using Modular Arrangement of Predetermined Time Standards (MODAPTS)[7] which allows for the comparison of a clients' performance against the time taken by an average competent worker completing the screening assessment tasks. Detailed information on the structuring of each screening assessment tasks was provided so as to conform to the speed standards provided[5]. All subtests were designed to be standalone and therapists could choose to administer subtests that suited the client's needs. Moreover the screening provided a baseline for further in-depth testing and designing of vocational rehabilitation intervention programmes[5]. The reliability and validity of the WASP I was not researched. The occupational therapists used their clinical skills and experience to interpret test performance.

The WASP I was revised and published as the WASP II in 2005. Decisions regarding the revisions were based on the clinical experience of using the WASP I by a team of three experienced occupational therapists working in vocational rehabilitation and academia. Changes that were made included adding and removing tasks in the subtests, changing times and scoring in some job samples. In the WASP II it was made clear that not all subtests were timed and these subtests reflected ability scores alone. There were plans to develop more specific tasks for particular occupations to add to the WASP II but these plans were not followed up so only the 12 job samples which screen basic work skills were retained[5]. To facilitate the ongoing development of the screening assessment it was decided the WASP II would be continuously reviewed using action research with clinicians involved in the ongoing evaluation and revision of the screening assessment. This process was anticipated to allow the occupational therapist to screen for capability consistent with criteria based on standards and competence measured using accuracy appropriate to the South African employment context[5]. The purpose of this action research was to evaluate the appropriateness of

the screening instrument in terms of theoretical and empirical evidence of validity, reliability, and compatibility with local service delivery, needs and population fit[8].

The WASP I and WASP II have been produced and sold by the University of KwaZulu Natal since 1995 and 2005 respectively[5]. Although many kits have been purchased the assessment has not been systematically evaluated and the usability and clinical utility of the WASP II to screen clients in current occupational therapy practice in South Africa has not been determined.

LITERATURE REVIEW

The purpose of any screening battery is to identify those at risk of poor performance in various domains related to work, and participation differences amongst referred clients, to determine if a detailed vocational evaluation is required using appropriate, reliable and valid standardised tests.

The evaluation of a screening assessment such as the WASP II is contingent on the purpose for which it is used. The WASP II at present is used clinically as a diagnostic tool[9] to evaluate the nature and extent of a client's deficits in generic work skills or prevocational skills and level of education . The assessment also has the potential to be used as a work readiness assessment[10] to determine what prevocational skills have been consolidated, and which need to be further developed, for example with adolescents who are required to transition into the workplace[11]. There are other standardised screening assessments which evaluate generic work skills but do not include the components assessed by the WASP II. Two examples are the Assessment of Work Performance (AWP)[12] and Work Ability Index (WAI)[13]. The AWP[12] is an activity-based assessment of a client's work ability skills when performing any work task activity, in real-life and other settings where findings are reported in relation to body structure, as well as motor, process and communication skills. Three specific structured simulated work tasks have been added to the AWP and this specific application instrument is called the AWP-SA[14]. The WAI also screens aspects affecting work but is a self-report questionnaire which also includes one section on mental capabilities for work[13].

Literature indicates the following guidelines be used for the evaluation of universal screening assessments. The targeted domain, constructs and the format of the screening assessment must be clearly defined. Clarity on whether the screening assessment needs to be used in its entirety, how information will be obtained, as well as how often the assessment should be administered must be justified. The clinical useability and utility of the screening assessment should be determined[8].

Useability

Even if a screening assessment has been shown to be valid and reliable, aspects such as feasibility of the administration, identification outcomes, and compatibility with local service delivery needs must be ensured. Smart (2006) conceptualised clinical utility under four constructs for interventions in the workplace: appropriateness, relevance, practicality and accessibility in terms of cost. Appropriate relates to how effective the assessment is and how it fits into the existing intervention process which includes formal evidence for the use of the assessment. Relevance relates to the impact it has on treatment and clinical decision-making. A screening assessment should be able to identify difficulties that an individual currently experiences[15] across the working age bands and with both acute and chronic conditions. The WASP II has been used with subacute and chronic multi-diagnostic clients from 15 years to 65 years. The assessment was designed to accommodate persons with a wide range of educational backgrounds, although some job samples require a basic level of literacy, and no work experience is required. The WASP II has been used to screen clients for medicolegal and insurance claims and return to work situations. Additionally, it has also been found to be suitable for screening of prevocational skills for scholars and for job seekers[5].

The practicality of the screening assessment considers the administration setting, training required, time efficiency, scoring complexity as well as accessibility in relation to the cost relative to the benefits of identifying dysfunction[16]. The WASP II is accessible in terms of the cost of administration and cost-effectiveness in reusing materials[17]. The subtests must be administered by an occupational therapist and their professional knowledge and experience are required for observations to support the scores obtained and in interpreting the results. Practicality in the administration of all job samples in the WASP II in terms of the completeness of the instructions have been addressed and the job sample layout is standardised irrespective of the position of the therapists in relation to the client during testing. The scoring is relatively simple since ability and speed are scored on a 5-point scale with a rating of 5 indicating above average performance and with a rating of 1 indicating severely impaired performance[5].

Utility

The utility of an assessment determines acceptability to all stakeholders, including the clients, their family, the multidisciplinary team, employers, legal experts and insurance companies for meaningful impact on service delivery[17]. All stakeholders should be able to understand the implications, consequences and outcomes of the screening assessment. In the WASP II all subtests are presented in English and a translator may

be used to explain the instructions if the client's first language is not English, but no formal translation of these instructions are available. Knowledge of appropriate further assessments, interventions and work accommodations needed based on the screening are also important. Screening without the opportunity for further, more comprehensive assessment, intervention planning and service delivery is a waste. It can result in the unnecessary labelling of clients as disabled, which may impact their ability to achieve future outcomes[17].

Recommendations as a result of the screening assessment should be feasible and contextually relevant[16]. This includes the ecological validity of the screening assessment in relation to real-world tasks and real-world functioning in employment[18]. To improve the relevance of the WASP II job samples were based on South African educational norms and 12 job samples which reflect generic abilities required in many occupations are assessed[5]. WASP II was designed to screen sample behaviours in a context other than the workplace. The choice of administering only some subtests or tasks relevant to the client allows for a client-centred approach[17] and the effect of testing on the client can be monitored by the occupational therapist[19]. The WASP II can be administered to one client or in a group of up to five clients at a time. The WASP II can also be administered according to the client's level of endurance, for example, a few job samples a day i.e., 2/3 or more/ up to 5/6 at a time[5].

METHODOLOGY

Study design

This study used a quantitative, descriptive and cross-sectional survey design. A questionnaire was used to gather data to describe current practice in the use of the WASP II and the reported useability and utility of the WASP II in occupational therapy services.

Population and Sampling

Occupational therapists living and working in South Africa who are members of the Occupational Therapy Association of South Africa (OTASA) or who had purchased the WASP II were the population for this study. Convenience and snowball sampling were used. Participants who received the survey were asked to forward it to other occupational therapists they knew who had experience using the WASP II.

Since the number of occupational therapists who have had experience using the WASP II was unknown, based on the fact that 100 occupational therapy practices/departments had bought the WASP 1 and II, it was estimated that a sample of 55 participants was

required to be representative of this population, with a 5% margin of error accommodating for a small sample size, according to Cochranes formula[20].

Research Instrument

An online questionnaire for occupational therapists was specifically developed by the researchers to evaluate the characteristics of the WASP II, as well as the useability and utility in clinical settings. The questionnaire incorporated questions similar to those used in a published study for determining the utility and useability of another instrument[21]. The questionnaire included both closed and open-ended questions.

The questionnaire was piloted for content validity and relevance by occupational therapists familiar with the WASP II, but who were not presently using the WASP II in their practices. Five occupational therapists were purposely selected and requested to comment on the relevance, clarity and ambiguity of the questions[22]. In addition, they were asked to propose any other questions that should be included in the questionnaire[23]. Eight questions did not achieve a score of 0.8 on the Content Validity Index (CVI) and these questions were therefore removed.

Research Procedure

The questionnaire, the information letter and consent to participation was distributed on an electronic link on the Research Electronic Data Capture (REDCap) system[24] via the OTASA communication system and individually to occupational therapy departments based on the UKZN's purchase records of the WASP II. Those receiving the survey were asked to forward it to other occupational therapists practicing vocational rehabilitation[23] who were not members of OTASA. The participants were given a month to respond. Ethical clearance for the study was obtained from University of Kwazulu Natal Humanities and Social Sciences research ethics committee.

Data Analysis

Demographic and contextual factors, as well as all questions on the questionnaire, were analysed using frequencies and percentages. The open ended questions were analysed using summative analysis and comments were identified as positive or negative responses.

RESULTS

Seventy-seven respondents completed the questionnaire, but only 70 questionnaires were analysed as seven were incomplete.

Demographics of the sample

As can be seen from Table I the greatest number of respondents were between the ages of 40-45 years, with nearly half of respondents having postgraduate training or postgraduate degrees.

Table 1: Demographics of respondents

		n	%
Age(n=70)	20-29	9	12.85
	30-39	21	30
	40-49	23	32.85
	50-59	10	14.28
	>60	5	7.14
Level of OT qualification(n=70)	B OT/BSc OT	36	51.42
	Post graduate diploma	15	21.42
	MOT/MSc OT	17	24.28
	PhD	1	1.42
Work Sector (n=134)*	Private sector	47	67.14
	Insurance	28	40.00
	Medicolegal	29	41.42
	Public Sector	8	11.42
	Health	10	14.28
	Basic education	4	5.71
	Military	3	4.28
	NGO	1	1.42
	Other*	4	5.71

* Some respondents indicated that they provided services in more than one sector. Sectors in Other included: higher education, the mining sectors and the Road Accident Fund (RAF).

Respondents reported having completed additional training courses on vocational assessment, ranging from postgraduate courses, MODAPTS Plus courses to webinars. Over 40% of respondents had more than 10 years' experience in vocational rehabilitation.

Evaluation of the WASP II

Respondents provided services to more than one type of client in their clinical practices, with more than 80% providing services to clients with physical impairments and more than 60% providing services to clients with mental health concerns. Disability assessments for the Road Accident Fund (RAF) and Passenger Rail Agency of South Africa (PRASA), as well for medical negligence cases were included under the Other category.

The WASP II was used most frequently with the clients' presenting with traumatic brain injuries (27%) and upper limb and hand injuries (26%). Forty two percent of respondents indicated they screened clients with depression, schizophrenia, bipolar mood disorder and anxiety using this screening assessment. Other clients included neurological conditions, such as stroke, spinal cord injuries, learning disabilities and intellectual disabilities. The WASP II was found to be suitable for clients with no previous work history (20%), irrespective of the first language (11%), and for acute or chronic conditions (59%), but was least useful for a client with visual deficits.

Respondents reported that the subtests of the WASP II were used most frequently to screen/assess current work ability (42%) and production speed (71%), and least frequently for work placement in new /alternative jobs (14%). The results of the WASP II were used in reports for insurance companies (29%), employers (21%), and medico-legal associates (20%).

Only 26 of the 70 respondents who used the WASP II in clinical practice felt they were familiar enough with the WASP II to answer section 2 of the questionnaire. Results for these participants are presented in Table II. The analysis of open-ended questions on each subtest indicated the appropriateness of the subtests for the South African context are also reported in Table II. Ten of the 12 subtests were used by more than 40% of the respondents.

Table II: Subtest use and evaluation

	Percentage who used subtest	Positive and negative comments for each subtest	
Subtest 1 General Cognitive Functions			
Orientation	39.13	**Positive**: easy and quick to administer, appropriate, especially for the South African context, good determination of basic cognitive functioning, including memory and a range of work abilities.	**Negative:** orientation and general awareness are too basic and inappropriate for some clients.
General Awareness	34.78		
Functional Memory: Task 1 - auditory recall	**65.22**		
Functional Memory: Task 2 - visual recall	**60.87**		
Subtest 2- Writing			
Writing Samples 1 and 2	17.39	**Positive**: easy to conduct, good assessment of administration tasks, the efficiency of pencil grip and copying. Useful for scholars with learning problems, assessment of upper limb and cognitive problems.	
Subtest 3 Functional Reading & Comprehension			
Task 1: Comprehension	**73.91**	**Positive:** appropriate in determining comprehension/ understanding, a useful tool for scholars with learning problems, clients with a head injury, and workers in administration.	**Negative**: time-consuming, language barriers, sentence sequencing was unreliable, client dependent.
Task 2: Comprehension	**65.22**		
Task 3: Appropriate words	**47.83**		
Task 4: Sentence sequencing	30.43		
Subtest 4 Functional Mathematics			

Task 1: Graded arithmetic	**73.91**	**Positive:** practical, easy to explain, useful if less than grade 12, learning problems, head injuries and medico-legal reports, assesses cognition and financial/clerical skills	**Negative:** time-consuming, does not translate into function, not applicable to some clients
Task 2: Basic use of a calculator	**65.22**		
Subtest 5 Visual Perception			
Task 1: 3D to 3D copying	**60.87**	**Positive:** useful to screen for perceptual issues and task concept according to the Vona duToit Model of Creative Ability (VdTMoCA,) and for client who do manual labour.	**Negative**: other perceptual tools were preferred as more evidence based.
Task 2: 2D to 3D copying	**47.83**		
Subtest 6 Following instructions			
Task 1: Verbal instructions	39.13	**Positive:** useful to assess cognitive concerns, task concept within VdTMoCA, work ability for new and alternate jobs and clients with learning disabilities.	**Negative**: verbal scores not valid, use other tests.
Task 2: Written instructions	**60.87**		
Subtest 7: Problem Solving			
Task 1: Social awareness	34.78	**Positive:** very relevant to South Africa, useful for assessing clients with mental health issues and screening planning and general work and functional ability.	**Negative**: language barriers and other tests are more useful.
Task 2: Logical reasoning	30.43		
Task 3: Word associations	17.39		
Task 4: Verbal abstraction	21.74		
Subtest 8: Coordination and dexterity			
Task 1: Discs	**43.48**	**Positive:** useful for screening fine motor, unilateral and bilateral dexterity and hand manipulation. .	**Negative**: norms for the subtest need improvement, preferred other tests, only useful for specific vocations
Task 2: Nuts and Bolts	**52.17**		
Task 3: Stencil cut out	8.70		
Subtest 9: Dynamic Posture			
Dynamic Postures	**47.83**	**Positive:** good alternative to the expensive tests, screening of memory, agility and mobility in work tasks and task concept in VdTMoCA.	**Negative**: too brief.
Subtest 10: Money Management			
Task 1: Identification of coins	26.09	**Positive:** necessary and appropriate useful for screening administrative tasks and money management intervention in head injury.	**Negative**: outdated – other more valid assessments.
Task 2: Calculating change	26.09		
Task 3: Reading a cash register receipt	21.74		
Task 4: Completing a bank deposit slip	17.39		
Task 5: Completing a cheque	13.04		
Task 6: Basic accounting	**73.91**		
Subtest 11: Organization and sequencing			
Filing cards	17.39	**Positive:** useful for screening for work ability in administrative tasks.	**Negative**: other methods preferred
Subtest 12: Computer Sample			
Task 1: Theory	26.09	**Positive:** practical, user-friendly for screening of work-related typing, computer and administration skills. .	**Negative**: outdated and not user-friendly
Task 2: Practical	**47.83**		
Psychological battery			
Stress Questionnaire	**56.52**	**Positive:** useful with persons with mental illness, self-report tools effective and useful to understanding the source of stress.	**Negative**: long assessment and subjective. Source of questions
Time management	21.74		
Self report work situation	30.43		
Goal Setting at work	17.39		

WASP II useability and utility

Useability

The useability of the WASP II is presented in Table III. The majority of respondents agreed the WASP II was cost-effective, was sensitive to clients' educational level and the instructions were easy for the clients to understand. They also agreed the WASP II could easily be incorporated into clinical practice, was suitable to their practice context and supported their clinical reasoning. Fewer respondents agreed that administration time was appropriate and the WASP II supported their clinical judgement. Only a third of respondents agreed that the WASP II provided standard scores for prevocational and vocational skills and was sensitive to the client's language.

Table III: Useability of the WASP II

	Variable	Percentage agreement
Cost and benefit	is cost effective as compared to other vocational screening tools	71
	is cost effective in relation to other work assessments	75
	provides standard scores for prevocational and vocational skills	33
Acceptability to clients	is sensitive to South African clients for culture	56
	is sensitive to South African clients for language	38
	is sensitive to South African clients for education level	67
	Is easy for the clients to understand in relation to the instructions	83
Appropriateness for clinical practice	subtests are appropriate in terms of administration time	54
	WASP II battery is appropriate in terms of administration time	54
	ease with which WASP II can be incorporated into clinical practice	63
	suitability of the WASP II to the practice context	67
	support of the WASP II to clinical reasoning	79
	support of the WASP II to clinical judgement	54

Utility

While only a third of respondents agreed that the WASP II could identify mild dysfunction, between 67% -79% agreed that the screening assessment supports all other utility items, including discrimination for a severe level of dysfunction, informing the choice of other assessments and intervention, and supporting vocational

rehabilitation intervention. Fewer respondents agreed that the WASP II outcomes were understood by other service providers, referring parties such as lawyers and insurers, as well as clients, although most indicated this was not an issue for other health professionals and employers (Table IV):

Table IV: Utility of the WASP II

	Variable	Percentage agreement
Discriminate between different levels of dysfunction	identify mild dysfunction	39
	identify moderate dysfunction	54
	identify severe dysfunction	78
	identify dysfunction irrespective of client's diagnosis	70
	identify prevocational skills	58
Clinical utility	can inform the choice of other assessments for a more detailed work evaluation	79
	can inform the choice of other clinical interventions	75
	informs report writing	75
Supports further work intervention	informs recommendations for work placement	74
	informs recommendations for work readiness	75
	informs recommendations for work support	75
	informs recommendations for work accommodations	67
	informs recommendations for return to work	67
Understanding the implications of the WASP II screening	other health professionals	100
	other service providers	52
	other referring parties such as lawyers and insurers	61
	employers	70
	Clients	57

DISCUSSION

Data for the study were collected from a heterogeneous group of occupational therapists providing vocational rehabilitation services to clients with different conditions in a number of settings. Nearly half of the respondents in this study could be considered experienced clinicians as they had postgraduate qualifications and have been practicing in vocational rehabilitation for more than 10 years. Data can therefore be assumed to reflect the views of occupational therapists familiar with the WASP II screening assessment.

Most respondents reported selecting subtests on the WASP II that were aligned with individual client needs. Aspects of general work skills such as on-task behaviour, quality of work performance, work rate and errors[25] were assessed on all tasks in the WASP II except for the psychosocial battery.

Although the administration of the entire screening assessment and some subtests were considered inappropriate in terms of administration time by nearly half of the respondents, mostly only one or two tasks within the subtests were administered in an assessment. The most frequently used subtests were: Functional reading and comprehension, Functional mathematics, Following instructions and Money management. The tasks for comprehension, graded arithmetic, basic accounting, use of a calculator and following written instructions were all used by more than 60% of respondents. The premise for assessing generic or general work using practical tasks, which are required in many work settings, was supported since these tasks align with key general[26] or generic work skills of acquiring information[27] or following directions[25], numeracy, conveying information[27] and written communication[28]. Positive feedback on the use of these generic work skills was also reported in terms of their use with scholars and students yet to enter the workplace, where adaptation of general or generic skills are increasingly required for changing job requirements[28]. The computer tasks which align with the generic work skill of application of information technology[28], were used by fewer respondents, probably since the tasks were developed in 2005, and although based on programmes commonly used in computers, aspects of these tasks may need to be updated.

Other key generic or general work skills such as organisation and applying logical processes[27] or problem solving[28] can be assessed using the WASP II. However, the tasks in these subtests were only used by a third of respondents or less, even though positive comments indicated their appropriateness for the South African context and general work ability, especially with mental health care users (MHCUs). Respondents reported using other outcome measures to assess these aspects but did not specify which ones specifically. In the Problem-solving subtest the social awareness task was more frequently used, supporting the importance of this aspect in the workplace, for the generic work skills or working with others or group[27] or team work[28].

The General cognitive functions, Writing, Visual perceptual, Coordination and dexterity and Dynamic posture subtests, all include tasks which assess work skills related to impairments in memory, visual perception and fine and gross motor skills. Tasks for visual and auditory functional memory and 3D to 3D copying were used by more than 60% of respondents, while the tasks assessing gross and fine motor performance were used by more than 40% of respondents. The use of these tasks is congruent with clients with neurological, mental health and upper limb dysfunction, which respondents reported they assessed most frequently.

Some tasks such as writing samples, cutting a stencil, completing a bank deposit slip and completing a cheque were used by less than 17% of respondents. While these tasks may allow scoring of general work skills such as accuracy and errors, they required extra materials or were outdated, and did not reflect current practice in the work situation, and their retention will need to be reviewed.

The psychosocial battery, a self-report set of questionnaires, was used by 57% of respondents or less. The stress questionnaire was the most useful assessment in understanding work stressors, followed by the self-report of the situation at work. However, it was reported that the questionnaires were long with subjective results that needed to be interpreted as such.

While the utility of the WASP II in relation to cost was considered good, but the perceived lack of benefits in providing standardised scores was a concern. Even though the WASP II is based on MODAPTS standard times for the tasks with average times indicated for each, and detailed instructions on the task layout required on the mat provided, no information about the coded MODAPTS times was available in the assessment manual. The times can thus not be validated if required. A number of the tasks on the WASP II are not timed and assess ability in relation to errors made. There is no standardisation for the number of errors scored, indicating the need for further research and validation of this aspect of the WASP II.

The WASP II was reported to be useable and acceptable to sensitivity to clients' educational levels and incorporated into clinical practice in various settings in South Africa, including private and public sectors and schools. Unlike the useability reported for the AWP assessment, the WASP II provides the required materials in the assessment kit since tasks are standardised and therapists do not need source resources[14]. Allowing flexibility in the use of one or many of the tasks in the assessment also meant the WASP II supported therapists clinical reasoning on the unique needs of each client, even if the lack of standardised scores especially for ability, did not offer as much support for their clinical judgement. The issue with the WASP II not accommodating the client's home language is an ongoing concern[29] when screening and standardised assessments are used in a multilingual country like South Africa[30]. A similar problem was reported in the utility of the AWP for clients whose home language was not Swedish, the language in which the assessment is administered[14]. Translation of instructions could be considered, but 83% of respondents agreed that the instructions in the WASP II were not complex and easy for clients to understand.

The utility of the WASP II was adequate for all aspects, except discrimination of mild dysfunction. This may be due to the labelling of the scores 5-1 on the WASP II. The MODAPTS standard time scores relate to the ability of the average worker, although this is indicated as an Above average for a score of 5 on the Likert scale on the WASP II for time and ability. A score of 5 could be reflected as Average to align with an intervention to maintain work ability as indicated on the Work Ability Index[31]. A score of 4 or Average indicates the client may take twice as long to complete the task. This score should indicate Below average and align with support work ability on the Work Ability Index[31]. A score of 3 should indicate mild impairment and a score of 2 should reflect moderate impairment which aligns with improving work ability and restoring work ability respectively on the Work Ability Index. A score of 1 is a severe impairment where the clients can take 10 times longer to complete a task and may be unable to achieve any work skill.

A strength of the WASP II is the clinical utility which informs other assessments and intervention and reporting in vocational rehabilitation. The scoring system also means that the implications of the WASPII can be understood by other stakeholders, but clarity and simplification of the results is required for clients and other service providers.

Limitations

The sample of respondents who evaluated the WASP II was small, and results must be viewed in that light. The screening assessment appears to be used by a limited number of therapists in practice, with a considerable variation in the number of therapists using a limited number of the subtests and tasks available in the WASP II battery.

Recommendations

This study has highlighted the need for some subtests and tasks on the WASP II to be revised. A need for additions to the manual indicating the MODAPTS coding for tasks which are timed, and further research to establish validity and reliability of the WASP II ability scores is recommended. The client, employers and other stakeholders' perspective of the implications of the WASP II screening assessments should also be established.

CONCLUSION

Many of the subtests and tasks on the WASP II were viewed as an appropriate assessment for screening general or generic work skills in relation to specific impairments in the South African context. WASP II screening assessment accommodates differing abilities in clients depending on the education level and

diagnosis, but may under-assess high-functioning clients. Except for clients' home language and providing standard scores for generic work skills, the WASP II was considered to have adequate useability and utility for use in clinical practice with a variety of clients. However, research for updating some subtests and tasks, particularly Organising and sequencing and Money management, is urgently required.

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