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The Knowledge, Skills, and Attitudes Needed for Entry Level Wheelchair Service Providers: A Collaboration with ISWP and CTF

Taylor Bumbalough
taylordbumbalough@gmail.com

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Taylor Bumbalough, OTD/S

Expert and Faculty Mentor: Dr. Teresa Plummer, PhD, OTR/L, CAPS, CEAS, ATP

International Society of Wheelchair Professionals (ISWP)

Mission: "to serve as global resource for wheelchair service standards and provision through advocacy, education, standards, evidence-based practice, innovation and a platform for information exchange."

Vision: "to have all people who need wheelchairs receive appropriate products and services with dignity, enabling them to access education, employment and health care and to participate in their communities."

Clinician Task Force (CTF)

"The Clinician Task Force (CTF) provides the voice of the clinical community in order to make a positive difference in ensuring appropriate access to assistive technology. There is clearly a need for experienced clinicians in the field of wheeled mobility and seating to share their knowledge and experience regarding Complex Rehabilitation Technology (CRT) and the CTF is that forum."

Literature Review

- Of the 75 million people in the world in need of a wheelchair for mobility only 5-15% have access (WHO, 2018).
- The vast discrepancy between supply and demand for appropriate wheelchair devices leads to health disparity for those without access as they are at higher risk for pressure sores, changed posture, decreased independence, and an overall lower quality of life (WHO, 2008).
- A lack of trained educated personnel continues to contribute to inequitable access for those in need of wheeled seating and mobility (Rushton, 2020).
- Fung et al.'s study found of 72 educational institutions polled spanning across low, middle, and high resourced settings, 57(79.2%) incorporated wheelchair service provision education into their curriculum, and of that 57, 43 (75.4%) used their own original materials (2017).

Goals

- Participatory Action Research (PAR) methods paper on the development of the Wheelchair Educators Package (WEP).
- Development of Engagement Survey to assess WEP Development Team members' perceptions regarding the incorporation of PAR key components and level of engagement during the WEP development.

ISWP

CTF

- Collaborate in CTF study manuscript writing to achieve study's aim of: identifying the facilitators, barriers, and opportunities for incorporating educational content on wheelchair service provision to determine how CTF members can utilize their skills to meet needs of academic programs WSP education.

Deliverables

PAR Engagement Survey for WEP Development

Use of PAR Components within the Development of the WEP	Perceived level of importance to the PAR process	Satisfaction with integration of the components in the project
PAR Components	1 2 3 4 5	1 2 3 4 5
Mutual respect: Stakeholders maintain consideration and attention for one another to combine skills and knowledge to achieve project goals.	1 2 3 4 5	1 2 3 4 5
Significant engagement of stakeholders from various contexts: Stakeholders are empowered to partner with one another, sharing opinions and decisions making responsibilities, to ensure WEP development is pertinent to end users.	1 2 3 4 5	1 2 3 4 5
Sharing knowledge: Stakeholders sharing expertise results in knowledge and collective understanding to improve knowledge for project processes and WEP development.	1 2 3 4 5	1 2 3 4 5
Transparency: WEP processes, documents, timelines, survey results and reports were shared with all stakeholders keeping WEP Development Team members well-informed on WEP development.	1 2 3 4 5	1 2 3 4 5

10-hour Self-efficacy Scale	1	2	3	4	5
Exciting & Sharing Ideas	1	2	3	4	5
Active Listening	1	2	3	4	5
Share ideas, thoughts, concerns freely	1	2	3	4	5
Speak up to speak	1	2	3	4	5
Ask for clarification, No wrong answers or questions	1	2	3	4	5
Allow space for others to speak all voices are encouraged and welcome	1	2	3	4	5
Invite someone to share that has not spoken	1	2	3	4	5
Slow down when speaking	1	2	3	4	5
Avoid or spell acronyms	1	2	3	4	5
Shared Commitment	1	2	3	4	5
Collaborative spirit	1	2	3	4	5
Active participation	1	2	3	4	5
Responsibility, follow instructions on time	1	2	3	4	5
Respond to requests in a timely manner	1	2	3	4	5
Prepare in advance for meetings	1	2	3	4	5
Devote your attention, avoid multitasking	1	2	3	4	5
Be evidence based	1	2	3	4	5
Transparency, declare conflict of interests	1	2	3	4	5
Embrace diversity	1	2	3	4	5
Acknowledge the diversity in the group	1	2	3	4	5
Request differences	1	2	3	4	5
Empathy with different situation and contexts	1	2	3	4	5
Embrace combat-situation experiences	1	2	3	4	5

10 Steps for use of the PAR approach	Level of Engagement "See definitions above"	Satisfaction with your level of engagement "See definitions above"
Step 1: Request from the actors involved in a problematic situation, identifying stakeholders.	1 2 3 4 5	1 2 3 4 5
Step 2: Joint agreement between researchers and actors involved in the situation.	1 2 3 4 5	1 2 3 4 5
Step 3: Small group responsibility for research cycle.	1 2 3 4 5	1 2 3 4 5

CTF Manuscript

Wheelchair service providers perspectives on effecting wheelchair service provision education

Leslie Jackson, OTD, OTR/L, ATP, CLA, CEAS III,
Taylor Bumbalough, OTD/S
Teresa Plummer, PhD, MSOT, OTR/L, CAPS, CEAS, ATP
Carrie Barrett, DPT, PT, NCS

ISWP Manuscript

Participatory Action Research Methods Paper

Paula W Rushton, PhD
Yohali Burrola-Mendez, PhD
Teresa Plummer, PhD, MSOT, OTR/L, CAPS, CEAS, ATP
Jon Pearlman, PhD
Taylor Bumbalough, OTD/S

Manuscripts in Progress

References Available Upon Request

Outcomes

- Completed literature review on Wheelchair Service Provision (WSP) education and Participatory Action Research.
- Successfully completed WHO Wheelchair Service Training Package Basic and Intermediate.
- Researched the lived experiences of those in need of wheeled seating and mobility by reading "Disability Visibility" and "Demystifying Disability".
- Participated in the development and execution of interprofessional event with 100+ Belmont University interior design, OT, and PT students.
- Completed 30 hours of shadowing within Tristar Skyline Wheelchair Clinic with Sandy Foster, PT, ATP.

ISWP

- Developed PAR Engagement Survey
- Contributed to PAR methods paper
- Collaborated with 32 experts in the field of WSP to achieve set goals within PAR research for WEP development.

CTF

- Participated in analyzing and disseminating results gleaned from survey data retrieved from CTF members.
- Contributed to Participatory Action Research (PAR) in the wheelchair service provision in the United States.

Knowledge

-WHO 8 Steps of WSP
-WHO Wheelchair Service Training Package Basic and Intermediate level
-Wheelchair Educators Package

Attitudes

- Professional communication skills enhancement
- Allocation of time in an efficient and effective manner
- Collaborative with international/national experts
- Client centered treatment and prescription
- Well researched in cutting edge equipment
- Communicative with supplier and additional healthcare professionals

Skills

- Interview Skills
- Efficient Documentation
- Knowledge translation into prescription
- Patient Education
- Competent in Mat Assessment, transfers, MMT/ROM, and equipment demonstration

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