ID	Responsible Person	Title	Category/Sub-sections of RW	Keywords	Summary	Note	Link
1	Vuthea	Test-retest reliability of the KINARM end-point robot for assessment of sensory, motor and neurocognitive function in young adult athletes	Robotics and Exoskeletons for Physical Therapy	KinArm, assessment, sensory, motor and cognitive function	A study to determine the reliability of assessments of sensory, motor and cognitive function conducted with the KINARM end-point robotic device in young adult elite athletes. Skiy-four randomy selected healthy, young adult elite athletes participated. The results suggest moderate-to-good test-retest reliability for the majority of parameters measured by the KINARM robot.		Test-retest reliability of the KINARM end- point robot for assessment of sensory, motor and neurocognitive function in young adult athletes PLOS ONE
2	Vuthea	Movement kinematics and proprioception in post- stroke spasticity: assessment using the Kinarm robotic exoskeleton	Robotics and Exoskeletons for Physical Therapy	KinArm, post-stroke,	A study to characterize upper limb function using two tasks: Visually Guided Reaching and Am Position Matching. Comparisons were conducted between individuals with (n = 35) and without (n = 35) upper limb post-stroke spassflot). Statistically algorithant differences an affected into post-formance between groupper difference of the statistical statistical statistical and and the statistical stati		Movement kinematics and proprioception in post-stroke spasticity: assessment using the kinam robotic exoskeleton I Journal of NeuroEngineering and Rehabilitation I Full Text (biomedcentral.com)
3	Vuthea	Virtual Reality Therapy in Social Anxiety Disorder	Virtual Therapy for Upper Extremity	Virtual therapy, social anxiety disorder	A review to provide an overview of current methods and important aspects for virtual reality applications in the treatment of social anxiety disorder. Fever anothized controlled trials have investigated the efficacy of virtual reality exposure therapy (VEET). No differences in efficacy between cognitive behavior therapy and VEET as a stand-alone treatment and the therapeutic processes involved before this therapy can be disseminated in routine circular practice.		
4	Vuthea	Exposure to virtual social interactions in the treatment of social anxiety disorder: A randomized controlled trial	Virtual Therapy for Upper Extremity	Virtual therapy, social anxiety disorder, social interaction	They presented a randomized controlled trial (n = 60) that investigate the efficacy of a stand-shore virtual reality exposure intervention comprising verbal interaction with virtual humans to target heterogeneous social fears in participants with social araxiety disorder (SAD). Exposure to virtual social artections was effective in reducing levels of SAD. Future technological and psychological improvements of virtual social interactions with effective in FSAD.	Delft Remote Virtual Reality Exposure Therapy	https://www.sciencedirect. com/science/article/pii/S0005796715300 802?via%3Dihub
5	Vuthea	Can virtual reality exposure therapy gains be generalized to real-life? A meta-analysis of studies applying behavioral assessments	Virtual Therapy for Upper Extremity	Virtual therapy, behavior assesment, social anxiety disorder	They conducted a meta-analysis of clinical trials applying VRET to specific phobias and measuring treatment outcome by means of behavioral laboratory tests or recordings of behavioral advitties in real-life. Results revealed that patients treatments that behavioral advitties and the second se		https://www.sciencedirect, com/science/article/pii/S0005796715300 3342via%SDihub
6	Vuthea	Virtual Reality Therapy: Emerging Topics and Future Challenges	Virtual Therapy for Upper Extremity	Virtual therapy, extended abstract	An extended abstract discussed about VR therapy with emerging topics and future challenges.		https://www.liebertpub.com/doi/full/10. 1089/cyber.2018.29136.bkw
7	Vuthea	Virtual Reality Therapy in Mental Health	Virtual Therapy for Upper Extremity	Virtual therapy, mental health	A review of VR herapy in mental health disorder. They stated that virtual reality herapy is effective in generalized anixely disorder and obsessive-compulsive disorder. There is increasing evidence that cue exposure therapy is effective in addiction and eating disorders. They also stated that studies into the use of virtual reality therapy in psychosis, autism spectrum disorder, and attention deficit hyperachity disorder (ADH2) are promising.		https://www.annualreviews. org/doi/abs/10.1146/annurev-clinpsy- 081219-115923
8	Vuthea	Better, Virtually: the Past, Present, and Future of Virtual Reality Cognitive Behavior Therapy	Virtual Therapy for Upper Extremity	Virtual therapy, Cognitive behavior	A review provides a summarize of the past, present, and future of the VR, including milestone studies and discussions on the clinical potential of alternative embodiment, gamification, avatar therapists, virtual gatherings, immersive storytelling.		https://link.springer.com/article/10. 1007/s41811-020-00090-7
9	Vuthea	Virtual Therapy at a Remote Hospital Collaboration	Virtual Therapy for Upper Extremity	Virtual therapy, collaboration, remote	An abstract discussed the virtual therapy for remote collaboration. They stated that the virtual collaborative model had a positive impact on patient outcomes, and provider experience. It provided access to physiotherapy for patients living in rural areas, and supported recovery to ensure safe and timely discharge from hospital.		https://www.ijic.org/articles/abstract/10. 5334/ijic.ICIC22365/
10	Vuthea	A systematic review on the usability of robotic and virtual reality devices in neuromotor rehabilitation: patients' and healthcare professionals' perspective	Combination of VR and Robotics for Physical Therapy	VR rehabilitation, robotic, systematic review	A review of sixty-eight studies on on the usability of robotic and virtual reality devices in neuromot rehabilitation. Robot-assisted rehabilitation was considered useful as it supported increased treatment intensity and contributed to improved aptients physical independence and psychoscial web-lening. They concluded that VR and robotic devices have been perceived usable, reflecting good acceptance in neuromotor rehabilitation programs.		https://link.springer.com/article/10, 1186/s12913-022-07821-w
11		Immersive virtual reality for upper limb rehabilitation: comparing hand and controller interaction	Virtual Therapy for Upper Extremity				https://link.springer.com/article/10. 1007/s10055-022-00722-7

Study Design Step					Est Time (min)						
1	Greetings				2	2					
2	Demographic questionniare	http://www.udel.edu/0010181			4	L .	https://delaware.ca1.qualtrics.com/jfe/form/SV_4Z3LmPKMallOnWK				nWK
	From Study Conditions Table		http://www.udel.edu	/0010183							
	Sleeve Grouth Truth Recording										
3	Condition A - Training	Record Training Time	Press Space for	calibration	3	3					
4	short break if needed		Press F5, F6 for	switch tracker	2	2					
5	Performance Task 1	Record Smart sleeve	Press Enter to sta	art task	3	3					
6	Performance Task 2	Record Smart sleeve			3	3					
7	Mid-questionnaire	http://www.udel.edu/0010182			5	5	https://delaware.ca1.qualtrics.com/jfe/form/SV_54MkvQHEqS2Uy6q				
8	short break if needed				2	2					
9	Condition B- Training	Record Training Time			3	3					
10	short break if needed		Press Q for quit		2	2					
11	Performance Task 1	Record Smart sleeve			3	3					
12	Performance Task 2	Record Smart sleeve			3	3					
13	Mid-questionnaire	http://www.udel.edu/0010182			5	5					
14	Interview				5	5					
					45	5					

#Collected Date	ID	Condition A	Training Time	Task 1	Direction	Task 2	Direction	Condition B	Training Time	Task 1	Direction	Task 2	Direction
	UD1	VR		Circle	Clockwise	Diamond	Counter	KinArm		Diamond	Clockwise	Circle	Counter
	UD2	KinArm		Circle	Clockwise	Diamond	Counter	VR		Diamond	Clockwise	Circle	Counter
	UD3	VR		Diamond	Counter	Circle	Clockwise	KinArm		Circle	Counter	Diamond	Clockwise
	UD4	KinArm		Diamond	Counter	Circle	Clockwise	VR		Circle	Counter	Diamond	Clockwise
	UD5	VR		Circle	Counter	Diamond	Clockwise	KinArm		Circle	Clockwise	Diamond	Counter
	UD6	KinArm		Circle	Counter	Diamond	Clockwise	VR		Circle	Clockwise	Diamond	Counter
	UD7	VR		Diamond	Clockwise	Circle	Counter	KinArm		Diamond	Counter	Circle	Clockwise
	UD8	KinArm		Diamond	Clockwise	Circle	Counter	VR		Diamond	Counter	Circle	Clockwise
	UD9	VR		Circle	Counter	Diamond	Counter	KinArm		Diamond	Clockwise	Circle	Clockwise
	UD10	KinArm		Circle	Counter	Diamond	Counter	VR		Diamond	Clockwise	Circle	Clockwise
	UD11	VR		Diamond	Clockwise	Circle	Clockwise	KinArm		Circle	Counter	Diamond	Counter
	UD12	KinArm		Diamond	Clockwise	Circle	Clockwise	VR		Circle	Counter	Diamond	Counter
	UD13	VR		Circle	Counter	Diamond	Clockwise	KinArm		Diamond	Counter	Circle	Clockwise
	UD14	KinArm		Circle	Counter	Diamond	Clockwise	VR		Diamond	Counter	Circle	Clockwise
	UD15	VR		Diamond	Clockwise	Circle	Counter	KinArm		Circle	Clockwise	Diamond	Counter
	UD16	KinArm		Diamond	Clockwise	Circle	Counter	VR		Circle	Clockwise	Diamond	Counter