Role-Playing Games (RPG) as Intervention Modalities

to Achieve Therapeutic & Educational Goals

for Individuals and Groups

from the Therapeutic Recreation Perspective.

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This paper includes background information and a few example program plan overviews from the Therapeutic Recreation / Recreation Therapy (TR) perspective, utilizing both regular & adapted versions of all 4 role-playing game formats: tabletop (TRPG), live-action (LARP), solo adventure Choose Your Own Adventure books (CYOA), & computer-based (CRPG). Standard & non-adapted uses of RPGs for various populations are covered, & specifically adapted forms to better achieve targeted goals, or the adaptation needs of specific disabilities. The full-length (120 minutes) presentation on which this paper is based, & other details here: http://rpgr.org/tsu-paper-collection.

I am registered with the Washington Department of Health & Human Services as a Recreation Therapist since 2014 & currently an undergraduate student at Eastern Washington University (EWU) working on an interdisciplinary degree in Recreation Therapy, Music Therapy, Neuroscience & Research Psychology. Involved with RPGs since ~1978. Details: http://rpgr.org/staff/hawke-robinson.

Regarding program plans that are more cooperative in nature, Stumbo & Peterson's *Therapeutic Recreation Program Design Principles & Procedures* (2009) states that it is “overwhelmingly important” to provide programs that emphasize the Avedon Intragroup interaction pattern, especially with such an overabundance of TR solo & competitive programs & lack of truly cooperative activities (192). Important for many, especially children (Statsky 2006).

Professor Dattilo's book (2011), maps very well between TR & RPGs. Especially the chapters on “Adventure Therapy” (15) for all RPG formats, “Expressive Arts as Therapeutic Media” (153) for LARP, & “Therapeutic Use of Play” (515) for TRPG.

Most early research on RPGs was triggered by the popular media, individuals, & various organizations such as Patricia Pulling of B.A.D.D. (1988 & 1989), and others (Dear 1985, Pratte 1986, Greenberg 2005, Robertson 2012) claiming the “dangers” of RPGs (Cardwell 1994), however research found either neutral or opposite-indicating results (Leeds 1995). Using online lists (Kim 2008) and EWU library database searches in 2008 I found only about 60 studies on psychological relationships

between RPGs & gamers, though observing increasing momentum in recent years. Examples include: more rapidly develop foreign language skills (Phillips 1994), novelty & stimulus in classroom settings for ADHD (Dendy 2011), developing stronger skills in reading, mathematics, creative thinking, cooperative play, problem-solving, & social skills. (DeRenard & Kline 1990), improved child behavior & attitudes (Bay-Hinitz 1994), & catharsis (Hughes 1988). Also development of many other skills as well as potentially significant therapeutic benefits (Kestrel 2005), a suicide rate of TRPG players 1/8th that of non-gamers (Blackmon 1994), use of RPG in the self-treatment of clinical depression (John Hughes 1988), lower levels of meaninglessness & alienation (Derenard & Kline 1990, Hawkes-Robinson 2011), & a study by Abyeta, Suzanne & Forest, James (1991, December) indicating that gamers are lower in criminal tendencies than rest of population, however, psychoticism, which was higher in the *non-gamers*, did predict criminality.

CYOA format pros: Accessible to a wide population, flexible time commitment, well structured, reusable, very inexpensive, & easiest learning curve for TRS & other care-providers without prior RPG experiences.

Cons: Not social (unless modified/adapted to be read aloud by others, though through guided post-activity “processing” can be used to work on social skills), rigidly structured, doesn't allow flexibility outside of the if/then design, doesn't really allow for “character development”, requires matching language abilities & cultural cohort considerations between the client & book, & *requires* reading skills unless someone to read for them (non-English literate, younger, or reading impaired clients).

TRPG format pros: Inherently social activity, cooperative game-play. Research further reinforces that fantasy RPG players have higher empathy scores than non-gamers (Rivers et al. 2016) (Yee 1999). Accessible to wide range of populations, & generally inexpensive initial investment with

long-term re-usability of equipment. Creativity & unlimited flexibility choices. Easy to find players in small cities or larger, & easy to find locations to play. Triggers many other interests in peripheral subjects such as history, literature, cartography, painting, sculpting, metallurgy, physics, etc. & motivations for ancillary activities like miniature painting, terrain building, map drawing, etc.

Cons: Generally not at all physically active, can be difficult to find players/groups in small towns with some locations having ongoing societal stigma & outright hostility, especially in more rural communities. Many facilities are not wheelchair friendly, are noisy, dirty, too hot, cold, or otherwise uncomfortable. Without an experienced & skilled GM/TRS running the game, if participants are lacking in social skills (such as ASD/PDD clients), games can rapidly break down & lead to group dissolution. Steepest learning curve for a care provider lacking prior TRPG experience, which can take weeks, months, or years to develop, but this can be addressed through collaboration with TR & non-TR-trained GMs, similar to the Romach program in Israel.

CRPG format: Critical consideration is real-time vs. turn-based. Clients with significant physical &/or cognitive impairments will be much better served with turn-based CRPGs that wait indefinitely for user input, compared to real-time CRPGs that rely on coordination, reflexes, & fast cognitive processing speeds. Aggregate of research indicating “healthy” screen time is around 1-2 hours per day, happier kids (Gosden 2014), increased pre-frontal cortex gray matter and improved memory & navigation abilities (Kelman 2015), and neuro-plasticity benefits (McGonigal 2011).

Caveats related to social & empathetic skills, with exceptions illustrated in NPR's Science Friday “How Games Move Us” (2016), games that specifically work on evoking emotion, compassion, empathy, etc.

Pros: Many styles & genres, now more culturally accepted. Some useful for social skills & trial-by-error learning, example: *Life is Strange*. Online versions can join with existing friends & family &

provide a means for making new friends online, especially helpful for those that are severely physically restricted, allowing connection with the world when would otherwise be socially isolated, & for those with social phobias they can slowly increase social connections behind the safety of the screen. Easy to find others to game with online. Many adaptive interfaces available for disabilities. The more physically interactive interfaces such as the Wii, can provide physical activity. Training curve for care providers is low.

Cons: Majority not physically active, higher levels of obesity. Most offline versions do not help with social skill development, can be detrimental to empathy, etc., though exceptions with examples of *That Dragon, Cancer,* or *Life is Strange*. Online communities can be poor social experiences. Potential issues regarding violent games, interface & traits (Jung, Park, & Lee 2015). More limited choices & creativity than TRPG or LARP. Poor communication skills. Companies build in much “grinding” & “hooking” reinforcing “addictive-like” behavior patterns by design. Expensive upfront & recurring costs & obsolescence.

LARP format: TR professionals have extensive training in managing groups & the many dynamics that occur in group challenges under pressure, so this is another area where as-yet untapped potentially strong synergistic relationship could be developed between this professional community & the LARP community!

Pros: Variable physicality, flexibility for wide range of populations, encourages variants of team work, strongly encourages creativity & problem-solving, verbal & other communication skills, social skills, neural mapping with objects & world, many ancillary interests like painting, music, costume design & manufacture, etc.

Cons: Often more competitive in nature, the more combat-centered LARPs require athletic prowess rather than character abilities beyond the player's normal limitations which can exclude many

with significant physical or cognitive disabilities. Some can be somewhat expensive either in time or materials for equipment/costumes. Often difficult to find LARP groups nearby. Location accommodations can be challenging &/or limited by weather if outdoors, & many are not ADA/wheelchair friendly. There is significant ongoing social stigma & downright hostility in many locations (more than all the other formats of RPG). Learning curve for care providers without prior RPG experience is steep compared to computer-based or solo RPGs, though with some entry-level & rules-light LARP systems, but less steep than typical TRPG.

My general observations of ASD/PDD populations when participating in well-run TRPG & LARP generally leads to reduction of stereotyped behaviors such as fixation, distraction, hand-flapping, isolation, lack of response/interaction to/with others, & improvements in social interaction, cooperative play, communication, affect, self-confidence, while competitive game “losses” reduce their confidence. The key is structure, balance, & guidance. Little-to-no modifications necessary to either LARP or TRPG for this population to benefit. CRPG & CYOA need more supervision to limit hyper-focus.

Example: TRPG for ASD, Civic Resources. 1940s Noir Setting, “Case of the Missing Surgeon”. Participants working together, access & use civic resources such as police, fire department, doctor's office, hospital, theater, community center, etc. Details: http://rpgr.org/first-prototype-rpg

Example: TRPG & LARP for ASD Youth & Adults. Transit System. Participants build confidence & competence toward improved autonomy through use of the public transit system. Begins by using TRPG for phase I, then LARP actually using the buses for the final phase II. Details: http://rpgr.org/blog/using-role-playing-games-for-autism-spectrum-participants

Example: ASD / PDD Toddlers, Adapted LARP. Implemented trial with ASD toddlers & their neurologically normal peer group. Immediate reduction in stereotyped behaviors during the activities using LARP-basis compared to the simultaneous non-LARP activities. Higher success rates at

completing all tasks cooperatively. All but one participant completed all tasks successfully, & all maintained attention & focus for full duration of 15 minute session rotations, compared to average of only 5 minutes for non-LARP. Details: http://rpgresearch.com/blog/creating-larp-program-for-autism-spectrum-toddlers-1

Example: TRPG & LARP for Deaf & Hard of Hearing. Social activity for Deaf participants to reduce isolation & encourage interaction with TRPG & LARP using American Sign Language (ASL). Details: http://rpgresearch.com/documents/rpg-research-project/archives/rpg-adapted-for-the-deaf-using-asl

Example: TRPG or LARP, At-risk & Troubled Youth, Substance Abuse Recovery & Transition Plan. Using regular TRPG & LARP, provide other forms of diversionary activities than substance use/abuse, or associated destructive, violent, theft & high risk activities. If higher stimulus requirement, then participation in combat-based LARP, as outlet for such energy. Transition plan includes local gaming groups at hobby store, separate from drug culture peer group that would otherwise automatically return to as only recreational activity. Pilot program discussions & development with TR staff at Navos Mental Health in Seattle, WA.

MMORPG to TRPG for Social Phobias. 1 year informal research project, 12 new groups, 2 participants in 2 separate groups struggling with severe social phobias. Started with MMORPG, but wanted to try a more social connection, but in a safe setting, so each joined a group. Reported significantly decreasing anxiety levels in groups over time.

Example: All 4 Formats of RPG for Brain Injury Recovery Program. Based on amalgamation of actual cases from multiple facilities. Detailed video presentation (24:22) & supporting documents here: http://www.rpgresearch.com/brain-injury

Recovery Stage 1, CYOA Modality. Assessment: Diffuse brain injury, & localized concussive & piercing injuries to specific parts of the brain & spinal cord. Coming out of induced coma, Rancho Los Amigo Stage II, with minimal interactive capacity. Stamina limited to around 15-30 minutes between extended hours of rest.

Planning: After consultation, client's favorite activities included CRPG. RPG modality can be considered even if the client has never played RPGs, if interested in any books, television, or movies.

Implementation of adapted interactive CYOA: RTS (Recreation Therapy Specialist) asks the client, “Would you like to play a simple version of a role-playing game?”. “Squeeze/blink once for yes, two for no.”

Evaluation: Measurable improvements in the following areas: basic cognition, social interaction, simple to moderate problem solving, speech comprehension, encourages brain plasticity

Recovery Stage 2 – CRPG Modality. Assessment: Regained full visual function, only able to answer with simple monosyllabic words, very labile, significant aphasia, limited motor function of right arm, hand, & fingers, with full sensory response. Stamina 30 minutes.

Planning: Recommend using mouse, Wii-mote, or adaptive interface to participate in an offline, turn-based, CRPG. Should aide in neuroplasticity-related improvements in general cognition, problem solving, audio &/or visual language comprehension, gross motor functions, limited fine motor functions.

Implementation & adaptations: Client able to move & click both buttons on mouse, can see the computer screen clearly, & has enough cognitive functioning to interact in the game at a much higher level than before.

Recovery Stage 3, TRPG Modality. Assessment: Temporary impairment from spinal injury

around T1-T4, has regained limited use of entire upper body, can engage in light speech using very simple sentences, still some aphasia, can't move legs, stamina about 1 hour, using wheelchair.

Planning: Client now able to participate with minimal modification in TRPG. Some assistance is necessary from other participants to be patient & assist as needed when client has trouble communicating correct word or intention verbally. Able to pick up & roll, manipulate, read, & calculate dice rolls & simpler character variable calculations, though may have some trouble with verbally expressing the result. Comprehend letters, rulebooks, dialog, & mildly complex scenario puzzles. Can handle & write on paper with pencil, engage in adventure dialog between GM & other players.

Implementation & Adaptations: Only minor modifications are necessary for client to participate in this form of RPG. The tabletop interaction with other players & the Game Master (GM) will need to operate at a slower pace than “normal”, but client will be able to participate in the complete TRPG experience.

Evaluation: Measurable improvements in reading comprehension, social skills, joint & individual complex problem solving, speech, listening & comprehension, basic math, fine motor skills.

Recovery Stage 4 – LARP Modality. Assessment: Permanent L3 injury. Some ability to walk with assistance (braces), speech mostly recovered with occasional aphasia, some continued loss of some past memories but able to create & maintain most new memories. Some ataxic & spastic gross motor movement, but prognosis is positive if continue to engage in regular physical activities. Client is strongly averse to “regular” workout regimen or physical therapy, but curious about LARP with wheelchair or with braces. Planning: Will need to be a LARP program & group that allows for client's disabilities. Implementation: Client initially participates in controlled clinical setting with other “LARPers”. Over time client may be able to participate in LARP activities outside of clinical setting.

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