Feasibility and Impact of Digital Stories Intervention on Psychosocial Wellbeing of Rheumatoid Arthritis Patients

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**Purpose**

The purpose of this pilot study is to examine the feasibility and preliminary efficacy of a 4-week Digital Stories (DS) intervention to evaluate its impact on the psychosocial status of Rheumatoid Arthritis (RA) patients (N=20) and primary outcome of decreased depression.

**Background**

- RA is a chronic inflammatory autoimmune disease affecting the joints and internal organs.
- RA can begin at any age but has its peak between ages 30 and 55.
- A progressive disabling disease frequently leading to physical and psychological dependence with considerable financial consequences: generating anxiety, stress and depression.
- Depression further aggravates pain perception and disease progression. Patients report further support need, even after modern medication use, to manage pain, fatigue and depression.
- Digital stories are 3 to 5 min audio-visual to meaningfully capture and share participants’ lived experiences, complex narratives and emotional expression for therapeutic purposes.
- Storytelling interventions have been used for understanding patients’ experiences of illness, improving health communication and engagement and to ameliorate distress, anxiety and depression.

**Significance**

- DS has the potential to elucidate complex narratives in a compelling manner, increase participant engagement, and enhance the meaning of research findings.
- DS is a cost-effective, non-invasive, and easy-to-deliver psychosocial support tool never been formally tested as an intervention for RA patients.

**Hypothesis**

- Inhibition of daily activity
- Pain, fatigue
- Psychological vicious cycle of RA
- Increased pain perception
- Depression
- Social isolation
- Digital Stories intervention
- Decreased disease activity
- Increased daily activity
- Potential positive reinforcement Cycle of RA

**Method**

**Recruitment criteria**

- Clinically diagnosed RA patients currently undergoing treatment from Mayo Clinic, Phoenix, AZ.
- Ages 20-50 years.
- At least three swollen joints with acute pain.
- Minimum 30-minute of morning stiffness and fatigue.
- Not satisfied with current medication/treatment.
- Able to speak, read, write in English.

**Intervention**

- To develop a series of videos of personal, emotionally rich narratives told by 4 adult English-speaking RA patients, who have successfully managed RA symptoms, during a 2-day digital storytelling workshop. Video themes range from family support, spirituality, active and cognitive coping to emotional acceptance.
- Will show these videos to 20 adult English-speaking RA patients. Each participant will view 4 DS (each, 5-minute long) once per week over 4 weeks with a weekly email notification and reminder phone call.
- Intervention group sessions meet once per week for 1 hour each over 4 weeks at ASU lab with trained staff to facilitate DS program.
- Participants will be asked a series of questions about their emotions and resilience before and after they watch a video showing RA patients discussing their diagnosis, treatment and feelings about their RA experiences.
- A control group will be shown videos with conventional RA awareness information only.
- Self-report questionnaires collected pre/post 4-week intervention with 4-week follow up, via a secure web-based data collection platform (REDCap).

**Measures**

- All measures will be administered prior to and immediately following the DS intervention.
- Standard questionnaires designed to assess depression, anxiety using Profile of Mood States subscales.
- Social support measurement using Patient-Reported Outcomes Measurement Information System.
- Self-report questionnaires (stress, sleep, pain sadness, joint inflammation and physical activity levels).
- Participants will also be given an opportunity to share and record their own stories about their RA experience in a 15-minute follow-up interview about their perspective on the DS and emotional health.
- Interviews will be recorded and transcribed verbatim. Using a qualitative descriptive approach, line by line coding and content analysis will be conducted.

**Expected outcomes**

- Pre-post analyses may reveal decreased anxiety, depression and quality of life improvement.
- Watching the emotional content in DS may help RA patients cope with psycho-emotional challenges (stress, anxiety) for their holistic wellbeing.
- Positive correlation to emotional coping between pre and post assessments.
- Major themes to emerge from the qualitative data include identification with the storyteller, and emotional/cognitive changes.

**Discussion**

- The long-term goal is to use the results to inform theory, measurement, design and implementation of efficacious interventions aimed at optimizing RA patient wellbeing.
- Digital stories intervention improved psychological wellbeing of other chronic disease (breast cancer, diabetes) patients.
- If investigation shows potential, larger study with the similar population of RA patients will be developed.
- In future, we can also perform similar study with the caregivers for RA patients, coping with stress, to improve the communication between RA patients and their caregivers.
- If investigation is successful, similar intervention may be developed for other chronic disease patients in other languages to reproduce and extend the study.

**References**

7. All images are cited from Google.

For more information
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