**App-Based Transitional Care for Spinal Cord Patients**

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## I. Introduction

**A.** Spinal cord injuries account for more than 400,000 diagnoses per year globally.

**B.** Spinal cord injuries are lifelong disabilities that are associated with increased dependence for care, increased depression, higher rate of rehospitalizations, and lower self-efficacy.

**C.** Around the globe, there is a continuous issue with meeting the standards of care for spinal cord injury individuals after returning home resulting from limited healthcare access post-discharge.

**II. Purpose - "**This study aimed to evaluate the effects of app-based transitional care on the self-efficacy and quality of life of spinal cord injury patients" (Liu et al, 2021).

## III. Method

**A.** This research was a multicenter and assessor blinded randomized control trial (RCT).

**B.** A total of 98 patients participated in the trial.

**1.** The population consisted of individuals who were born paraplegic or who were paralyzed due to a traumatic event. Individuals who recently received care from hospice or were diagnosed terminally ill were excluded from the study.

**2.** The study population was split equally into two groups of 49; a study group that received care through the app, and a control group that received standard care.

**C.** Both groups received proper discharge instructions upon leaving the hospital.

**1.** The study group received follow-up care and guidance through the app. They received follow up phone calls at weeks two, four, six, eight, and 12, had individualized therapeutic conversation with the nurses through the app, health education, interdisciplinary referrals, and 24/7 patient interaction via the app.

**2.** The control group only had one routine follow-up appointment at week 12 post-discharge via phone call.

## IV. Results

**A.** "Data were collected before discharge **(T0)**, at 12 weeks **(T1)**, and at 24 weeks post discharge **(T2)**" (Liu et al., 2021).

### B. The Moorong Self-Efficacy Scale (MSES)

**1.** The MSES scores were recorded and compared between the control and study group. In the study group, social function efficacy, general self-efficacy, and person self-efficacy was all higher in the study group compared to the control group

**2**. In contrast, the control group's percentages in those three-factor structures were all lower than the study group's percentages.

**C. The 36-Item Short-Form Survey (SF-36)**

**1.** The SF-36 scores were higher in the study group compared to the control group specifically at week 24 post-discharge.

**2.** The virtual interactions through the app did not influence patient quality of life, however, the more frequent follow-up phone calls did influence patient quality of life.

| | T0<br>Pre-Discharge | T1<br>Post-Discharge<br>Week 12 | T2<br>Post-Discharge<br>Week 24 |
|---|---|---|---|
| MSES Score Mean | • 20.68(s)<br>• 21.64(c) | • 20.36(s)<br>• 18.46(c) | • 19.50(s)<br>• 19.33(c) |
| Social Function Self-Efficacy Mean | • 6.73(s)<br>• (6.75)(c) | • 6.49(s)<br>• 5.46(c) | • 6.06(s)<br>• 6.21(c) |
| General Self-Efficacy Mean | • 5.75(s)<br>• 6.21(c) | • 5.56(s)<br>• 5.42(c) | • 5.46(s)<br>• 5.64(c) |
| Person Function Self-Efficacy Mean | • 9.79(s)<br>• 11.01(c) | • 9.62(s)<br>• 9.65(c) | • 9.57(s)<br>• 9.36(c) |
| SF-36 Score Median | • 14.14-25.11(s)<br>• 14.94-27.20(c) | • 19.37-33.50(s)<br>• 20.13-31.06(c) | • 20.32-32.80(s)<br>• 15.11-2812(c) |

## V. Conclusion

**A.** In the end, it was found that the group that received the app-based care had better self-efficacy levels than the control group.

**B.** The change in the quality of life for the patients has not yet been proven.

**C.** App-based transitional care shows promise, however due to limitations in the study such as short observation time and low incidence, it needs further investigation. Future studies with longer observation times and higher incidence rates are needed to prove quality of life influence.

**D. "**This study confirmed that app-based transitional care improves the self-efficacy of SCI patients" (Liu et al, 2021).

## Reference

Liu,T., Xie, S., Wang, Y., Tang, J., He, X., Yan, T., & Li, K. (2021). Effects of app-based transitional care on the self-efficacy and quality of life of patients with spinal cord injuries in China: Randomized controlled trial. *JMIR mHealth and uHealth, 9*(4). e22960. https://doi.org/10.2196/222960