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Losing a Limb, Regaining Independence: A Systematic Review of Occupational Therapy Interventions for Lower Extremity Amputations

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Name: Group 12- Davis Berzins, Jennifer Cohen, Jamie Frank, Gabrielle Kirk, & Jennifer Mitchell

Title: Losing a Limb, Regaining Independence: A Systematic Review of Occupational Therapy Interventions for Lower Extremity Amputations

Speaker Qualifications:

The speakers are occupational therapy students at Thomas Jefferson University with experience working with adult populations on level II fieldwork placements. The speakers have diverse experience working with individuals with lower extremity amputations in the inpatient and outpatient settings.

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Primary Focus:

Rehab, Disability & Participation

Learning Objectives:

1. Describe lower extremity residual limb care interventions within the scope of occupational therapy
2. Explain the prevalence of individuals who sustain a lower extremity amputation and understand the impact on the U.S. health-care system
3. Identify lower extremity residual limb care interventions to maximize occupational performance

Abstract:

The purpose of this presentation is to report findings of a systematic review regarding residual limb care interventions supporting increased occupational performance in adults post lower extremity amputation. A systematic review was completed utilizing PubMed, CINAHL, and OTseeker. Inclusion criteria included articles with a sample of adults (mean age of 18-64 years old) with all levels of lower extremity amputations resulting from various etiologies. In addition, these articles were published within the past 10 years and in the English language. Exclusion criteria included articles that contained interventions outside of the scope of occupational therapy practice, systematic reviews, and meta-analyses. Two million people in the U.S. are currently living with limb loss. Hospital costs associated with amputees in 2009 totaled 8.3 billion dollars. Approximately half of individuals with amputations due to vascular disease will require an additional amputation within 2-3 years (Amputee Coalition, 2016). Although there is evidence on surgical techniques and physical therapy's role in rehabilitation of lower extremity amputations, there is limited evidence to support occupational therapy's unique role (Robinson, Sansam, Hirst, & Neumann, 2010). However, occupational therapists can provide valuable interventions to improve participation in all activities of daily living (Klarich & Brueckner, 2014). Critical appraisals of eligible articles were performed to identify themes and clinical implications utilizing quantitative and qualitative critical review forms. Four themes concluded from the literature associated with residual limb care interventions and their impact on occupational performance included education, health-care costs,

pain, and skin integrity. These findings present implications for occupational therapy research, education, and practice in regards to advocating for occupational therapy's role in the continuum of care for individuals with lower extremity amputation, and the implementation of interventions to increase occupational performance and decrease health-care costs. This presentation material is of intermediate level and targeted for an audience of occupational therapists and occupational therapy assistants with experience working with individuals with lower limb amputations.

References:

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Robinson, V., Sansam, K., Hirst, L., & Neumann, V. (2010). Major lower limb amputation -- what, why and how to achieve the best results. *Orthopaedics & Trauma, 24*(4), 276-285 10p.

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Klarich, J., & Brueckner, I. (2014). Amputee rehabilitation and preprosthetic care. *Physical Medicine and Rehabilitation Clinics of North America, 25*(1), 75-91. doi:10.1016/j.pmr.2013.09.005