

THE IMPACT OF PHYSICAL ACTIVITY INTERVENTIONS ON BEREAVED OLDER PEOPLE (CARERS AND NON-CARERS) IN PENNINE LANCASHIRE

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BACKGROUND

- Loss of a loved one has negative impact on mental and physical health and wellbeing (Gilbar & Ben-Zur, 2002).
- Marital bereavement increases the risk of depressive and anxiety-related symptoms, poor physical health and reduced resilience (Allen et al., 2013; Gilbar & Ben-Zur, 2002).
- Physical activity has a positive impact on mental health and it can reduce depressive symptoms (Raglin & Wilson, 2012).
- Only few studies examined the effect of physical activity on the impact of bereavement and the results of existing research are inconsistent. (Stahl & Schulz, 2014).

RESEARCH PROJECT

Overall aim:

To improve the understanding of the relationship between mental health, bereavement, and physical activity, and to improve the physical activity interventions on bereavement.

LITERATURE REVIEW:

- To explore the literature on the positive effect of physical activity on the bereavement process and the impacts on mental health and wellbeing for older people.

STUDY 1:

- To examine the relationship between physical activity, bereavement and mental health among older people using secondary data from the English Longitudinal Study of Ageing (ELSA).

STUDY 2:

- To determine the impact of physical activity on the mental health of carers and non-carers aged 55 plus who have experienced bereavement in the past 6-12 months.

Systematic literature review:
**IMPACTS OF PHYSICAL ACTIVITY ON THE EFFECT OF BEREAVEMENT
ON MENTAL HEALTH AND WELLBEING AMONG OLDER PEOPLE**

Aims:

- To understand the impact of physical activity and physical activity interventions on depression, anxiety and wellbeing of recently bereaved older adults.

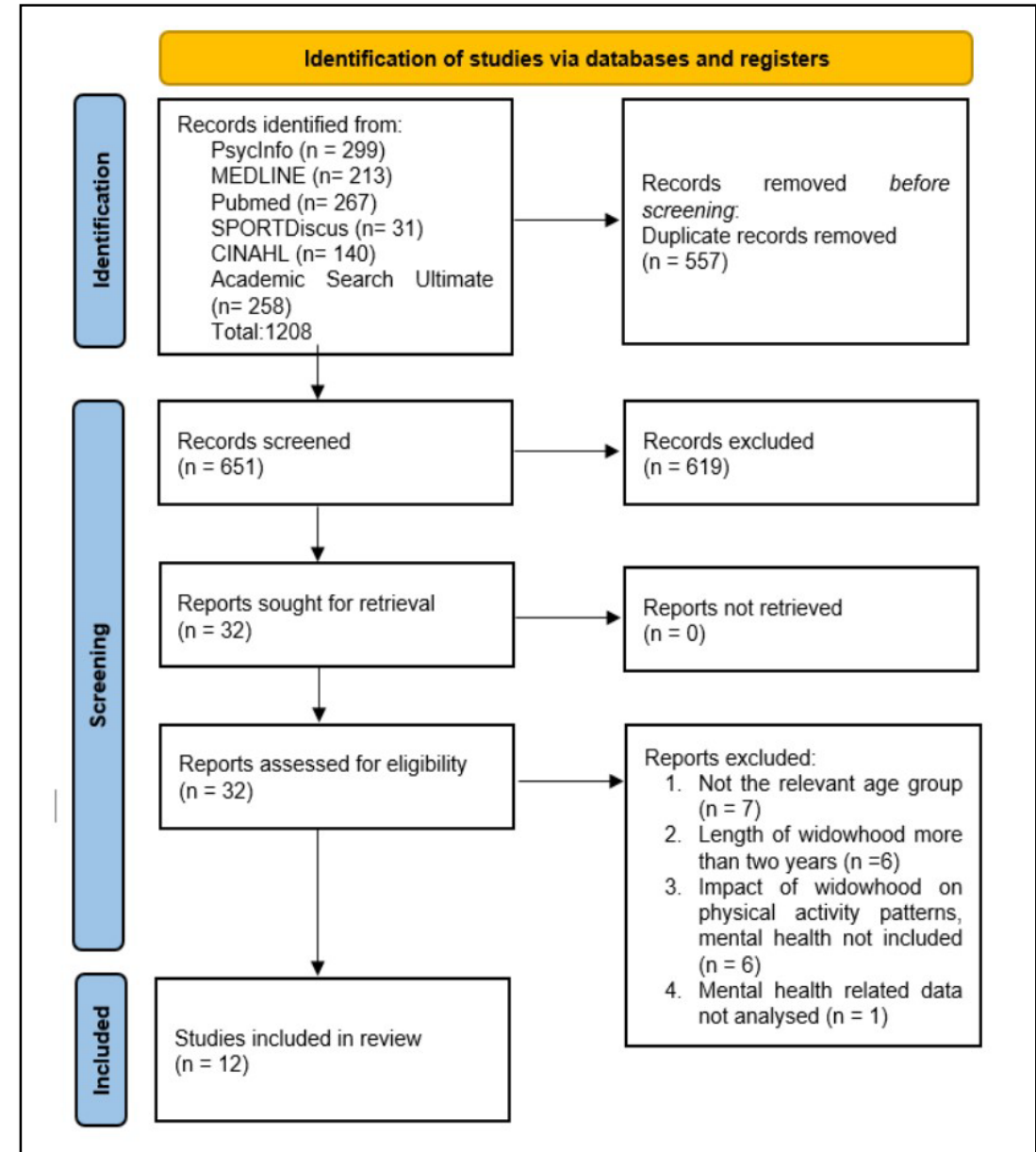
Methods:

- Inclusion and exclusion based on: study types, design, age, type and length of bereavement, types of physical activity and bereavement related mental health issues
- ***Age group:***
 - Studies with participants 50 years of age or older were included
 - Studies with participants younger than 50 years of age who are not clearly separable in the results were excluded.
- ***Data synthesis strategy:*** narrative synthesis

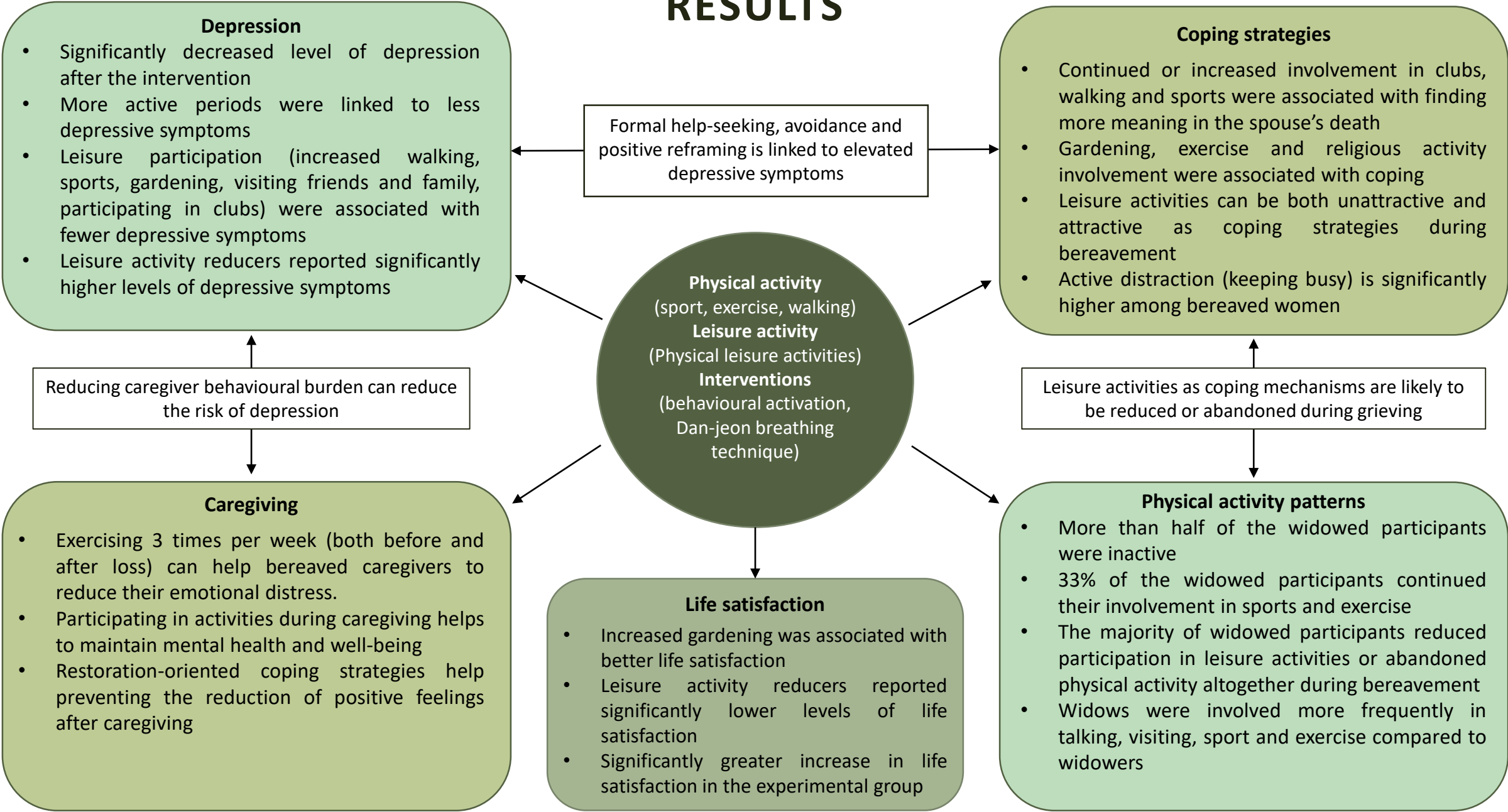
PRISMA FLOW DIAGRAM

RESULTS

- Searches were run on six electronic databases
- 1208 articles were identified (557 duplicate records)
- 32 articles were eligible for full text screening
- Finally twelve articles were included: 11 quantitative and 1 mixed-methods



RESULTS



CONCLUSION

Depression

Positive links between physical and leisure activities and reduced depressive symptoms

Caregiving

Positive relation between exercise and the reduced emotional distress of caregivers

Life satisfaction

Leisure activity participation and the impact of physical activity interventions were linked to greater life satisfaction

Physical activity patterns

Physical and leisure activities were used as coping strategies during bereavement
They did not report on the relationship between the intensity or the duration of physical activities and bereavement

Coping

Physical and leisure activities were used as coping strategies during bereavement

Study 1:

EXAMINING THE EFFECTS OF PHYSICAL ACTIVITY ON THE IMPACT OF OLDER PEOPLE'S BEREAVEMENT IN ELSA DATA

- Examining the relationship between physical activity, bereavement and mental health among older people
- **Data:** English Longitudinal Study of Ageing (ELSA)
 - Participants aged 50 and over
 - The study began in 2002 (9 waves)
- **Hypothesis:**
 - Hypothesis 1. There will be a difference in mental health outcomes in older people before and after bereavement.
 - Hypothesis 2. There is a difference in physical activity before and after bereavement.
 - Hypothesis 3. Levels of physical activity will be associated with levels of mental health outcomes of older people. This might be different for people who are bereaved.
 - Hypothesis 4. Physical activity will moderate the impact of bereavement on depression and life satisfaction.
- **Design:** longitudinal observational quantitative research

Study 1:

EXAMINING THE EFFECTS OF PHYSICAL ACTIVITY ON THE IMPACT OF OLDER PEOPLE'S BEREAVEMENT IN ELSA DATA

- **Measures:**
 - Mental health: CES-D, CASP-19, SWLS
 - Physical activity
 - Confounders/covariates: age, gender, self-perceived subjective social status, total income, education level, mobility impairment, psychiatric problems
- **Procedure:**
 - Data from two consecutive waves were merged
 - Included participants: marital status changed from married to widowed
 - Control group: continuously married participants
 - Case-control matching based on age and gender

Study 1:

EXAMINING THE EFFECTS OF PHYSICAL ACTIVITY ON THE IMPACT OF OLDER PEOPLE'S BEREAVEMENT IN ELSA DATA

- **Analysis:**
 - Two-way mixed ANOVA and hierarchical multiple regression
 - Using SPSS (version 27)
- **Descriptive statistics:**
 - CES-D scale mean score: below the midpoint of the scale
 - CASP-19 scale mean score: above the midpoint
 - SWLS scale mean score: above the midpoint
 - Physical activity mean score: slightly above the midpoint
 - Included covariates: age, gender, self-perceived subjective social status, total income, education level

RESULTS

Depression

The difference in depression levels was significantly affected by bereavement. Bereaved participants had significantly higher CES-D scores than married participants in wave 3.

Quality of life

Bereavement had no statistically significant effect on quality of life. Quality of life decreased in both participants groups.

Life satisfaction

There was a statistically significant effect of time on life satisfaction for both participants groups. Married participants had significantly higher SWLS scores than bereaved participants in wave 3.

Physical activity

Physical activity levels were lower in the bereaved participants group in both waves. Physical activity declined from wave 2 to wave 3 in both groups.

RESULTS

Hierarchical multiple regression analysis:

- Physical activity and bereavement improved the prediction of depression levels, quality of life and life satisfaction in model 2.
- Physical activity did not moderate the impact of bereavement on depression, quality of life or life satisfaction in model 3.

REFERENCES:

- Kim, Y., Kim, K., Boerner, K., Birditt, K. S., Zarit, S. H., & Fingerman, K. L. (2019). Recent parental death and relationship qualities between midlife adults and their grown children. *Journal of Marriage and Family, 81*(3), 616-630.
- Gilbar, O., & Ben-Zur, H. (2002). Bereavement of spouse caregivers of cancer patients. *American Journal of Orthopsychiatry, 72*(3), 422-432.
- Laerd Statistics (2015). Hierarchical multiple regression using SPSS Statistics. *Statistical tutorials and software guides*. Retrieved from <https://statistics.laerd.com/>
- Oldfield, Z., Rogers, N., Phelps, A., Blake, M., Steptoe, A., Oskala, A., Marmot, M., Clemens, S., Nazroo, J., Banks, J. (2021). *English Longitudinal Study of Ageing: Waves 0-9, 1998-2019*. [data collection]. 34th Edition. UK Data Service. SN: 5050, <http://doi.org/10.5255/UKDA-SN-5050-21>
- Raglin, J. S., & Wilson, G. S. (2012). Exercise and its Effects on Mental Health. In C. Bouchard, S. N. Blair, & W. Haskell, *Physical Activity and Health* (2nd ed., pp. 331-342). Champaign, IL: Human Kinetics.
- Stahl, S. T., & Schulz, R. (2014). Changes in routine health behaviors following late-life bereavement: a systematic review. *Journal of behavioral medicine, 37*(4), 736-755.