



PROTOCOL FOR A SYSTEMATIC REVIEW OF SELF-COMFORTING BEHAVIOURS ACROSS THEORETICAL FRAMEWORKS: EXAMINING PATTERNS, MECHANISMS, AND SOCIO-CULTURAL INFLUENCES OVER 50 YEARS

 **Obohwemu Oberhiri Kennedy, Phd**

Department Of Health, Wellbeing & Social Care, Global Banking School/Oxford Brookes University, Birmingham, United Kingdom; And Penkup Research Institute, Birmingham, United Kingdom

ABOUT ARTICLE

Key words: Self-comforting behaviours, adverse life events, emotional regulation, stress management, attachment theory, developmental psychology, clinical psychology, psychodynamic theory, cognitive-behavioural theory, socio-cultural influences.

Received: 05.04.2024

Accepted: 20.06.2024

Published: 30.06.2024

Abstract:

Background and Rationale: Self-comforting behaviors are a spectrum of conscious and unconscious actions employed by individuals to regulate emotions, manage stress, and maintain a sense of security. These behaviors manifest physically, cognitively, and socially, and are prevalent from infancy through adulthood. Despite their adaptive functions, excessive or maladaptive self-comforting behaviors can contribute to psychological distress. Understanding these behaviors through various theoretical frameworks is crucial for developing effective interventions and promoting mental health.

Objectives: This systematic review aims to:

1. Synthesize evidence on self-comforting behaviors across different theoretical frameworks.
2. Examine patterns and mechanisms underlying self-comforting behaviors.
3. Explore socio-cultural influences on the conceptualization and practice of self-comforting behaviors over the past 50 years.

Methods: The review will integrate findings from attachment theory, stress and coping theories, developmental psychology, clinical psychology, psychodynamic theory, and cognitive-behavioral theory. Examining studies within these frameworks allows the review to identify common themes and patterns, constructing a

comprehensive understanding of self-comforting behaviors.

Results: Preliminary findings suggest that self-comforting behaviors serve crucial roles in emotional regulation and stress management. However, their maladaptive use can signal underlying psychological issues. The review will highlight the interplay of biological, psychological, and environmental factors influencing these behaviors and their evolution across the lifespan.

Conclusion: A holistic approach, considering multiple theoretical perspectives, is essential for understanding self-comforting behaviors. This comprehensive understanding will inform the development of effective interventions to support individuals in managing stress and enhancing emotional well-being.

INTRODUCTION

Self-comforting behaviours encompass a range of conscious and unconscious actions individuals employ to regulate emotions, manage stress, and maintain a sense of security. These behaviours manifest in various forms, including physical, cognitive, and social dimensions. Physical manifestations include actions such as thumb-sucking, blanket clutching, or repetitive movements like rocking (Stockdale et al., 2020; Nonnenmacher et al., 2021; Fuertes et al., 2022). Cognitive strategies involve internal processes like positive self-talk, visualization, or problem-solving (Rahmiati & Emaliana, 2019; Flanagan & Symonds, 2022; Christopher, 2024). Social behaviours, such as seeking support from loved ones, also fall under the umbrella of self-comforting mechanisms (Efklides & Misailidi, 2019; Mak, 2029; Mule, 2023).

The prevalence of self-comforting behaviours extends from infancy to adulthood, highlighting their enduring role in human adaptation (Nolan, 2020; Braune-Krickau et al., 2021; Waters & Waters, 2024). In infancy, these actions are often innate responses to distress, such as sucking or clinging to a caregiver (Möller et al., 2021; Genna, 2022; Stevns & Hawkins, 2022). As individuals mature, self-comforting strategies become more complex and nuanced, reflecting cognitive and emotional development (Freedman et al., 2021; Nagabharana et al., 2021; Yang, Shu & Yin, 2022). For instance, adolescents may engage in self-soothing behaviours like listening to music or spending time in nature, while adults might rely on hobbies, exercise, or meditation to manage stress and maintain well-being.

Researchers from various disciplines, including psychology, developmental science, and psychiatry, have taken an interest in these behaviours. Although often overlooked or considered transitory, self-comforting behaviours serve crucial functions in emotional regulation, stress management, and maintaining a sense of well-being (Feldman, 2007). While self-comforting behaviours typically serve as adaptive coping mechanisms, their excessive or maladaptive use can contribute to psychological distress (Kalinowski & Leibenluft, 2016). For example, excessive thumb-sucking in childhood or compulsive nail-biting in adulthood may indicate underlying emotional difficulties. Moreover, the reliance on certain self-comforting behaviours, such as substance use or avoidance coping, can have detrimental consequences for overall health and well-being.

Self-comforting behaviours become particularly salient in the face of adverse life events, such as the loss of a loved one, near-death experiences, loss of investment, or academic failure (Mine, 2014). These challenging experiences often trigger increased reliance on self-comforting behaviours as a means of coping with intense emotional distress and uncertainty (Skinner et al., 2016). Understanding how self-comforting behaviours function during such times can provide deeper insights into their adaptive and maladaptive roles.

Understanding the complex interplay between self-comforting behaviours, individual differences, and environmental factors is crucial for developing effective interventions and promoting mental health. By exploring the various forms, functions, and outcomes of self-comforting behaviours, researchers can gain valuable insights into human behaviour and develop strategies to support individuals in developing healthy coping mechanisms.

To fully comprehend the complexities of self-comforting behaviours, it is imperative to examine them through the lens of multiple theoretical frameworks. This review considers the interplay between attachment theory, stress and coping, developmental psychology, and clinical psychology to elucidate the multifaceted nature of these behaviours. Synthesizing findings from these diverse perspectives will allow us to illuminate the complex interplay of biological, psychological, and environmental factors influencing the emergence, development, and function of self-comforting behaviours. By examining studies that explore self-comforting behaviours within different theoretical frameworks—such as attachment theory, stress and coping, infant development, psychopathology, cognitive-behavioural theory, and psychodynamic theory—common themes and patterns can be identified to construct a more comprehensive understanding of the phenomenon.

Attachment theory, as proposed by Bowlby (1969), provides a foundational framework for understanding self-comforting behaviours. According to this theory, early interactions with caregivers shape an individual's ability to regulate emotions and cope with stress. Secure attachment relationships, characterized by consistent and responsive caregiving, foster the development of effective self-comforting strategies. In contrast, insecure attachment patterns, resulting from inconsistent or unresponsive caregiving, may lead to maladaptive self-comforting behaviours. For example, children with secure attachments are more likely to develop healthy coping mechanisms, such as seeking comfort from trusted individuals, while those with insecure attachments may resort to self-soothing behaviours like thumb-sucking or rocking to manage distress.

Stress and coping theories, such as those proposed by Lazarus and Folkman (1984), further elucidate the role of self-comforting behaviours in managing stress. These theories emphasize the dynamic process of coping, wherein individuals appraise stressful situations and employ various strategies to manage their emotional responses. Self-comforting behaviours can be viewed as coping strategies that individuals use to mitigate the impact of stressors. For instance, cognitive strategies like positive self-talk and visualization help individuals reframe stressful situations and maintain a sense of control. Similarly, physical and social self-comforting behaviours provide immediate relief from stress and promote emotional regulation.

Developmental psychology offers additional insights into the evolution of self-comforting behaviours across the lifespan. From a developmental perspective, self-comforting behaviours emerge early in life as innate responses to distress and gradually become more sophisticated with age. Infants rely on basic self-soothing actions, such as sucking and clinging, to regulate their emotions. As children grow, they

develop more complex self-comforting strategies, such as engaging in imaginative play or seeking social support. Adolescents and adults continue to refine these behaviours, incorporating activities like exercise, hobbies, and mindfulness practices into their coping repertoire. This developmental trajectory underscores the adaptive nature of self-comforting behaviours and their role in promoting resilience and emotional well-being.

Clinical psychology contributes to our understanding of the maladaptive aspects of self-comforting behaviours. While these behaviours are generally adaptive, their excessive or inappropriate use can signal underlying psychological issues. For example, compulsive behaviours like nail-biting, hair-pulling, or skin-picking may indicate anxiety or obsessive-compulsive tendencies. Similarly, reliance on substance use or avoidance coping can exacerbate mental health problems and hinder effective stress management. Clinical interventions often aim to address these maladaptive behaviours by promoting healthier coping strategies and enhancing emotional regulation skills.

Psychodynamic theory, rooted in the work of Freud (1923), offers a different perspective on self-comforting behaviours. This theory posits that these behaviours may serve as defense mechanisms to protect the individual from unconscious conflicts and anxieties. For instance, repetitive actions like rocking or tapping may provide a sense of control and predictability in the face of internal turmoil. Understanding the psychodynamic underpinnings of self-comforting behaviours can inform therapeutic approaches that address the deeper emotional and psychological needs of individuals.

Cognitive-behavioural theory (CBT) also provides valuable insights into self-comforting behaviours. CBT posits that thoughts, feelings, and behaviours are interconnected, and that changing maladaptive thought patterns can lead to healthier behaviours and emotional states. Self-comforting behaviours can be understood within this framework as strategies to manage negative thoughts and emotions. For example, cognitive restructuring techniques can help individuals challenge and reframe negative self-talk, while behavioural interventions can promote the adoption of healthier self-comforting practices, such as engaging in physical activity or practicing mindfulness.

The integration of these theoretical perspectives highlights the multifaceted nature of self-comforting behaviours and underscores the importance of a holistic approach to understanding and addressing these behaviours. By considering the interplay of attachment, stress and coping, developmental, clinical, psychodynamic, and cognitive-behavioural factors, researchers and practitioners can develop more comprehensive and effective interventions to support individuals in managing stress and enhancing emotional well-being.

Objectives

This review aims to:

1. Synthesize evidence on self-comforting behaviours across different theoretical frameworks.
2. Examine patterns and mechanisms underlying self-comforting behaviours.
3. Explore how socio-cultural influences have shaped the conceptualization and practice of self-comforting behaviours over the last 50 years.

Research Questions

1. What self-comforting behaviours have been studied across various theoretical frameworks (e.g., psychological, sociological, cultural)?
2. What mechanisms (cognitive, emotional, physiological) underlie self-comforting behaviours?
3. How do self-comforting behaviours vary across socio-cultural contexts?
4. What trends and patterns can be observed over the last 50 years in the study of self-comforting behaviours?

METHODS

Eligibility Criteria

- Study Design: Quantitative, qualitative, and mixed-methods studies.
- Population: Humans across all age groups and demographics.
- Intervention/Exposure: Self-comforting behaviours, defined as any action or strategy employed by individuals to soothe emotional distress.
- Comparator: Studies without a focus on self-comforting behaviours or studies examining unrelated constructs.
- Outcomes:
 - Primary: Types and frequency of self-comforting behaviours.
 - Secondary: Mechanisms (e.g., cognitive reframing, emotional regulation), socio-cultural determinants, and patterns over time.
- Language: Studies published in English.
- Time Frame: Published from 1973 to 2023 (50 years).

Databases and Search Strategy

The PRISMA guidelines (Page et al., 2021) would be adhered to. The review protocol is to be registered on PROSPERO. The search is scheduled for July to August 2024.

The following databases will be searched:

1. PsycINFO
2. PubMed
3. Scopus
4. Web of Science
5. Sociological Abstracts
6. AnthroSource

The search string for PubMed is shown in Table 1.

Table 1: Search String for PubMed

("self-comforting" OR "self-soothing" OR "emotion regulation" OR "coping strategies")
 AND ("psychological framework" OR "sociological framework" OR "cultural anthropology")
 AND ("mechanisms" OR "patterns" OR "socio-cultural influences")

Screening and Selection Process

- Stage 1: Title and Abstract Screening

Titles and abstracts will be screened independently by two reviewers.

- Stage 2: Full-Text Review

Full texts of potentially eligible studies will be retrieved and reviewed for inclusion by two reviewers.

- Disagreements will be resolved through discussion or consultation with a third reviewer.

Inclusion/Exclusion Criteria for Screening:

1. Inclusion: Studies focusing on self-comforting behaviours, mechanisms, patterns, and socio-cultural influences.
2. Exclusion: Studies focusing solely on interventions unrelated to self-comforting behaviours (e.g., pharmacological treatments).

Data Extraction

A standardized data extraction form will capture the following:

1. Study Characteristics:
 - Author(s), year, title, journal, and country.
2. Population:
 - Age, gender, and cultural/socio-economic background.
3. Theoretical Framework:
 - Framework used (e.g., psychological, sociological).
4. Self-Comforting Behaviours:
 - Descriptions and definitions, categorized by type (physical, cognitive, emotional).
5. Mechanisms and Outcomes:
 - Mechanisms identified and their reported outcomes.
6. Socio-Cultural Influences:
 - Contextual factors shaping the behaviours.

7. Trends and Patterns:

- Temporal trends or significant changes over time.

Quality Assessment

The following tools will be used for quality assessment:

- Quantitative Studies: Joanna Briggs Institute (JBI) Checklist.
- Qualitative Studies: Critical Appraisal Skills Programme (CASP) checklist.
- Mixed-Methods Studies: Mixed Methods Appraisal Tool (MMAT).

Data Synthesis

- Quantitative Data:
 - A narrative synthesis approach will summarize patterns, mechanisms, and socio-cultural influences.
 - Where applicable, meta-analytic techniques will estimate pooled effects of mechanisms or behaviours across studies.
- Qualitative Data:
 - Thematic synthesis will be used to identify recurring themes related to socio-cultural influences and behavioural mechanisms.
- Temporal Trends:
 - Studies will be grouped by decade to observe patterns or shifts in research focus.

Limitations and Bias

Potential biases include:

1. Exclusion of non-English studies may lead to underrepresentation of non-Western perspectives.
2. Publication bias may favour studies with significant findings, leading to underreporting of null results.
3. Variation in definitions of self-comforting behaviours across studies may limit direct comparisons.

Timeline

The proposed timeframe for the research is shown below:

Table 2: Research Timeline

Activity	Timeline
Database search and screening	June - July 2024
Full-text review	August 2024
Data extraction	September 2024
Quality assessment	October 2024
Data synthesis	November 2024
Manuscript preparation	December 2024

DISSEMINATION

Findings will be disseminated through:

1. Peer-reviewed journal publications.
2. Conference presentations in psychology and sociology forums.
3. Executive summaries shared with mental health practitioners and educators.

Registration and Reporting

This protocol will be registered in the International Prospective Register of Systematic Reviews (PROSPERO). The review will adhere to the PRISMA guidelines to ensure transparency and rigor.

CONCLUSION

Self-comforting behaviors play a vital role in emotional regulation, stress management, and maintaining a sense of well-being across the lifespan. Examining these behaviours through multiple theoretical frameworks—attachment theory, stress and coping, developmental psychology, clinical psychology, psychodynamic theory, and cognitive-behavioural theory—this research aims to provide a comprehensive understanding of their adaptive and maladaptive functions.

The integration of these perspectives highlights the complexity of self-comforting behaviours and underscores the importance of a holistic approach to studying them. Recognizing the interplay between individual differences, environmental factors, and cultural influences is crucial for developing effective interventions that promote healthy coping mechanisms and enhance mental health.

Future research should continue to explore the nuanced roles of self-comforting behaviours in various contexts and populations. By doing so, we can better support individuals in developing adaptive strategies to navigate life's challenges, ultimately contributing to improved psychological resilience and overall well-being.

CONFLICT OF INTEREST

The publication of this article was supported by PENKUP Foundation, a non-profit organisation founded by the author.

FUNDING

This work was supported by the PENKUP Foundation, a division of PENKUP International, which provided funding for the publication of this article.

ACKNOWLEDGEMENT

The author would like to acknowledge the management and technical staff of PENKUP Research Institute, Birmingham, UK, for their excellent assistance and for providing medical writing and editorial support in accordance with Good Publication Practice (GPP3) guidelines.

REFERENCES

1. Bowlby, J. (1969). Attachment and loss: Vol. 1. Attachment. Basic Books.
2. Braune-Krickau, K., Schneebeli, L., Pehlke-Milde, J., Gemperle, M., Koch, R. and von Wyl, A., (2021). Smartphones in the nursery: Parental smartphone use and parental sensitivity and responsiveness within parent-child interaction in early childhood (0-5 years): A scoping review. *Infant Mental Health Journal*, 42(2), pp.161-175.
3. CHRISTOPER, V., (2024). SELF-CONFIDENCE AND ITS EFFECTS ON SPORTS PERFORMANCE-A BRIEF VIEW. Special Issue on, p.260.
4. Efklides, A. and Misailidi, P., (2019). Emotional self-regulation in the early years: The role of cognition, metacognition and social interaction. *The SAGE handbook of developmental psychology and early childhood education*, pp.502-516.
5. Feldman, B. T. (2007). *The developmental neurobiology of human attachment*. MIT press.
6. Flanagan, R.M. and Symonds, J.E., (2022). Children's self-talk in naturalistic classroom settings in middle childhood: A systematic literature review. *Educational Research Review*, 35, p.100432.
7. Freedman, A., Hu, H., Liu, I.T.H.C., Stewart, A.L., Adler, S. and Mehling, W.E., (2021). Similarities and differences in interoceptive bodily awareness between US-American and Japanese cultures: A focus-group study in bicultural Japanese-Americans. *Culture, Medicine, and Psychiatry*, 45, pp.234-267.
8. Freud, S. (1923). *The ego and the id*. Hogarth Press.
9. Fuertes, M., L. Gonçalves, J., Barbosa, M., Almeida, R., Lopes-dos-Santos, P. and Beeghly, M., (2022). A self-comfort-oriented pattern of regulatory behavior and avoidant attachment are more likely among infants born moderate-to-late preterm. *Infancy*, 27(1), pp.159-180.
10. Genna, C.W., (2022). *Supporting sucking skills in breastfeeding infants*. Jones & Bartlett Learning.
11. Kalinowski, L., & Leibenluft, E. (2016). Self-consolation in infancy and childhood: A review of behavioural and neurobiological findings. *Neuroscience & Biobehavioural Reviews*, 68, 435-452.
12. Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer Publishing Company.
13. Mak, J., (2019). *Migration-related stressors and coping strategies: a mixed-methods study among men in Nepal (Doctoral dissertation, London School of Hygiene & Tropical Medicine)*.

14. Mine, W.I.R., (2014). Shame and Guilt. Exploring the Essentials of Healthy Personality, p.211.
15. Möller, E.L., de Vente, W. and Rodenburg, R., 2019. Infant crying and the calming response: Parental versus mechanical soothing using swaddling, sound, and movement. *PLoS one*, 14(4), p.e0214548.
16. MULE, G., (2023). UNDER THE SKIN: EXPLORING THE INFLUENCE OF MATERNAL PSYCHOLOGICAL DISTRESS ON INFANT'S BEHAVIORAL AND AFFECTIVE THERMAL RESPONSES TO DISRUPTIONS IN EARLY INTERACTION.
17. Nagabharana, T.K., Joseph, S., Rizwana, A., Krishna, M., Barker, M., Fall, C., Kumaran, K. and Krishnaveni, G.V., (2021). What stresses adolescents? A qualitative study on perceptions of stress, stressors and coping mechanisms among urban adolescents in India. *Wellcome open research*, 6.
18. Nolan, E., (2020). The History and Evolution of Infant-Parental Attachment Security. In *Exploring Best Child Development Practices in Contemporary Society* (pp. 222-241). IGI Global.
19. Nonnenmacher, N., Müller, M., Taczkowski, J., Zietlow, A.L., Sodian, B. and Reck, C., (2021). Theory of mind in pre-school aged children: influence of maternal depression and infants' self-comforting behavior. *Frontiers in psychology*, 12, p.741786.
20. Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. (2020) The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ* 2021;372:n71. doi: 10.1136/bmj.n71.
21. Rahmiati, I.I. and Emaliana, I., (2019). EFL STUDENTS' ONLINE LEARNING: EPISTEMIC BELIEFS DETERMINE LEARNING STRATEGIES. *EDUCAFL: Journal on Education of English as Foreign Language*, 2(2), pp.86-94.
22. Skinner, E.A., Zimmer-Gembeck, M.J., Skinner, E.A. and Zimmer-Gembeck, M.J., (2016). Development of coping during adolescence: Heightened reactivity, pro-active regulation, and increased coping flexibility. *The Development of Coping: Stress, Neurophysiology, Social Relationships, and Resilience During Childhood and Adolescence*, pp.185-209.
23. Stevns, M. and Hawkins, L., (2022). Clinging, gripping, holding, containment: Reflections on a survival reflex and the development of a capacity to separate 1. In *Transforming Infantile Trauma in Analytic Work with Children and Adults* (pp. 89-104). Routledge.
24. Stockdale, L.A., Porter, C.L., Coyne, S.M., Essig, L.W., Booth, M., Keenan-Kroff, S. and Schvaneveldt, E., (2020). Infants' response to a mobile phone modified still-face paradigm: Links to maternal behaviors and beliefs regarding technoference. *Infancy*, 25(5), pp.571-592.
25. Waters, E. and Waters, T.E., (2024). Developmental change, bricolage, and how a lot of things develop: Mechanisms and changes in attachment across the lifespan. *Development and Psychopathology*, pp.1-20.
26. Yang, S., Shu, D. and Yin, H., (2022). The bright side of dark emotions: Exploring EFL teachers' emotions, emotional capital, and engagement in curriculum implementation. *Teaching and Teacher Education*, 117, p.103811.