UNIVERSIDADE FEDERAL DE MINAS GERAIS

Faculdade de Filosofia e Ciências Humanas

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A INFLUÊNCIA DAS EXPERIÊNCIAS ADVERSAS NA INFÂNCIA NO ENVELHECIMENTO BEM-SUCEDIDO

Belo Horizonte

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Dissertação apresentada ao programa de Pós-Graduação em Psicologia: Cognição e Comportamento da Universidade Federal de Minas Gerais como requisito parcial à obtenção do título de Mestre em Psicologia.

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Orientadora: Pricila Cristina Correa Ribeiro

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PROGRAMA DE PÓS-GRADUAÇÃO EM PSICOLOGIA: COGNIÇÃO E COMPORTAMENTO

ATA DA DEFESA DA DISSERTAÇÃO DO ALUNO MARCOS THADEU GURGEL CORDEIRO DE FARIA

Realizou-se, no dia 14 de julho de 2023, às 08:00 horas, videoconferência, da Universidade Federal de Minas Gerais, a defesa de dissertação, intitulada *A influência das experiências adversas na infância no envelhecimento bem-sucedido*, apresentada por MARCOS THADEU GURGEL CORDEIRO DE FARIA, número de registro 2021669453, graduado no curso de PSICOLOGIA, como requisito parcial para a obtenção do grau de Mestre em PSICOLOGIA: COGNIÇÃO E COMPORTAMENTO, à seguinte Comissão Examinadora: Prof(a). Pricila Cristina Correa Ribeiro - Orientador (UFMG), Prof(a). Elizabeth do Nascimento (FAFICH-UFMG), Prof(a). Heloisa Gonçalves Ferreira (Universidade Federal do Rio de Janeiro).

A Comissão considerou a dissertação:

(X) Aprovada

( ) Reprovada

Finalizados os trabalhos, lavrei a presente ata que, lida e aprovada, vai assinada por mim e pelos membros da Comissão.
Belo Horizonte, 14 de julho de 2023.

Prof(a). Pricila Cristina Correa Ribeiro (Doutora)

Prof(a). Elizabeth do Nascimento (Doutora)

Prof(a). Heloisa Gonçalves Ferreira (Doutora)

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RESUMO

As experiências da infância influenciam todo o curso de vida, incluindo até mesmo a velhice. O objetivo desta pesquisa quantitativa correlacional retrospectiva foi investigar se existem associações significativas entre as experiências adversas na infância (EAI) e o envelhecimento da pessoa idosa. A hipótese foi que esta associação seria de tendência proporcional inversa: quanto maior a exposição à EAI, menos provável seria as pessoas idosas apresentarem indicadores de envelhecimento bem-sucedido (EBS). Primeiramente foi realizada uma revisão de escopo da literatura que visou mapear as pesquisas que investigaram experiências adversas na infância com pessoas idosas. Esta etapa possibilitou maior entendimento sobre as estratégias utilizadas neste tipo de pesquisa retrospectiva. Em seguida foi conduzida a pesquisa empírica aqui proposta. Não existe consenso na literatura sobre o que é EBS, portanto também não há protocolo consensual para acessá-lo. Os parâmetros adotados para avaliar os indicadores de EBS da amostra (N = 356) foi uma combinação da conceituação apresentada na revisão sistemática conduzida por Martin em 2014 e o Two Factor-Model (Modelo de Dois Fatores) proposto por Pruchno em 2010, que avalia a dimensão objetiva (saúde física) e a dimensão subjetiva (bem-estar social e emocional). A partir dessas duas referências foram selecionados indicadores de EBS, que foram coletados com o seguinte protocolo: A Escala de Atividades Instrumentais da Vida Diária (Escala de Lawton); Doenças Crônicas (Oito questões para identificar a presença de oito doenças crônicas); Autopercepção do Envelhecimento (Autoavaliação do envelhecimento com nota de 0-10); Escala de Depressão Geriátrica (GDS); e Escala de Suporte Social (MOS-SSS). Para acessar as experiências adversas na infância será utilizado o Questionário Internacional de Experiências Adversas na Infância (EAI-QI) que contempla treze categorias das adversidades na infância: negligência emocional, negligência física, exposição à violência doméstica, exposição à abuso de substâncias por familiar(es), encarceramento de cuidador(a), separação ou morte de cuidador(a), cuidador(a) com transtorno mental ou tendência suicidas, abuso físico, abuso emocional, abuso sexual, bullying, violência na comunidade e violência coletiva. Foi realizada análise descritiva do perfil sociodemográfico da amostra, descrição dos dados das variáveis dependentes (indicadores de EBS) e independentes (EAIs), análise de correlação entre as EIAs e os indicadores de envelhecimento bem-sucedido com coeficiente de Spearman. A correlação de EAIs mais forte encontrada foi com sintomas depressivos (r = 0,345; p $\leq$ 0,01), e estatisticamente significativa com Autopercepção de Envelhecimento (r = -0,203; p $\leq$ 0,01) e Suporte Social (r = -0,274; p $\leq$ 0,01).

ABSTRACT

Childhood experiences influence the entire course of life, including old age. The aim of this retrospective quantitative correlational research was to investigate whether there are significant associations between adverse childhood experiences (ACEs) and aging in older adults. The hypothesis was that this association would be inversely proportional: the greater the exposure to ACEs, the less likely older adults would present indicators of successful aging (SA). Firstly, a scoping literature review was conducted to map the research investigating adverse childhood experiences in older adults. This stage provided a better understanding of the strategies used in this type of retrospective research. Subsequently, the proposed empirical research was carried out. There is no consensus in the literature on what constitutes SA; thus, there is no consensus protocol to assess it. The parameters adopted to evaluate the SA indicators of the sample (N = 356) were a combination of the conceptualization presented in the systematic review conducted by Martin in 2014 and the Two Factor-Model proposed by Pruchno in 2010, which assesses the objective dimension (physical health) and the subjective dimension (social and emotional well-being). From these two references, SA indicators were selected, which were collected using the following protocol: The Lawton Instrumental Activities of Daily Living Scale (Lawton IADL Scale); Chronic Illnesses (Eight questions to identify the presence of eight chronic diseases); Self-perception of Aging (Self-assessment of aging with a score from 0-10); Geriatric Depression Scale (GDS); and Social Support Scale (MOS-SSS). To assess adverse childhood experiences, the Adverse Childhood Experiences - International Questionnaire (ACE-QI) will be used, which includes thirteen categories of childhood adversities: emotional neglect, physical neglect, exposure to domestic violence, exposure to substance abuse by family member(s), caregiver's incarceration, caregiver's separation or death, caregiver with mental disorders or suicidal tendencies, physical abuse, emotional abuse, sexual abuse, bullying, community violence, and collective violence. Descriptive analysis of the sociodemographic profile of the sample, description of the data of the dependent variables (SA indicators), and independent variables (ACEs) were performed. Correlation analysis between ACEs and indicators of successful aging was conducted using the Spearman coefficient. The strongest correlation found was between ACEs and depressive

symptoms (r = 0.345; p ≤ 0.01), and statistically significant correlations were observed with Self-perception of Aging (r = -0.203; p ≤ 0.01) and Social Support (r = -0.274; p ≤ 0.01).

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LISTA DE ABREVIATURAS E SIGLAS

ACE - Adverse Childhood Experiences

ACE-IQ - Adverse Childhood Experiences - International Questionnaire

AIVD - Atividades Instrumentais da Vida Diária

CDC - Center for Disease Control and Prevention

CHARLS - China Health and Retirement Longitudinal Study

EAI - Experiências Adversas na Infância

EAI-IQ - Questionário Internacional de Experiências Adversas na Infância

EDG - Escala de Depressão Geriátrica

GDS - Geriatric Depression Scale

HRS - Health and Retirement Study

IADL - Instrumental Activities of Daily Living

MOS-SSS - Escala de Suporte Social

MOS-SSS - Social Support Scale

N - Tamanho da amostra

OECD - Organization for Economic Co-operation and Development

OMS - Organização Mundial da Saúde

PPC - Proatividade Preventiva e Corretiva

R - Spearman's Coefficient

SA - Successful Aging

SD - Standard Deviation

SSS - Social Support Scale

TILDA - Irish Longitudinal Study on Ageing

WHO - World Health Organization

SUMÁRIO

1 Introdução

As experiências da infância geram influências em todo o curso de vida (Gilgoff et al., 2020; Hustedde, 2021; Oral et al., 2015), incluindo implicações para o envelhecimento saudável ou patológico (Ancelin et al., 2021; Felitti et al., 1998; Sachs-Ericsson et al., 2015; Xiang & Wang, 2020). O interesse da comunidade científica em entender estas implicações cresceu abruptamente na década de 1990 após a publicação do *Adverse Childhood Experiences Study* (Felitti et al, 1998).

Em um estudo conduzido por Brandt et al. (2012), a origem do envelhecimento bem-sucedido foi rastreada até a infância. Os resultados mostraram que pessoas idosas que enfrentaram condições mais favoráveis na infância, tinham probabilidade muito maior de ter um envelhecimento com menor incidência de patologias. Schafer e Ferraro (2011) evidenciaram que infortúnios diversos na infância (por exemplo, abusos e dificuldades econômicas) levaram a menor probabilidade de evitar o adoecimento na vida adulta e na velhice. As adversidades na infância são preditoras também do senso de propósito na vida adulta, incluindo a velhice, segundo resultados do estudo conduzido por Hill et al. (2016). Em estudo de Felitti et al. (1998) com pessoas idosas, os resultados sugerem que EAIs diminuem a longevidade. Esses acontecimentos adversos são caracterizados por fatores psicológicos, econômicos, sociais e pelo relacionamento com os pais ou cuidadores (Ibidem).

Assim, evidências na literatura indicam associação entre as adversidades na infância e comprometimentos ao envelhecimento saudável. O termo envelhecimento bem-sucedido tem sido usado de forma intercambiável em relação ao envelhecimento saudável (Aronson, 2020). Implicações das EAIs para a velhice podem ser multidimensionais. Por exemplo, em um estudo realizado por Rehkopf et al. (2016), as evidências indicam que as experiências adversas na infância influenciam nos hábitos saudáveis na velhice – dimensão da saúde comportamental. Lin et al. (2021) mostraram que os EAI influenciam a probabilidade de desenvolver doenças crônicas no final da vida – dimensão saúde física. Gold et al. (2021), indicaram que os EAIs influenciam o desempenho cognitivo na velhice – dimensão cognitiva. E por fim, Chen et al. (2021) apontaram que a depressão na população idosa está associada a EAIs - dimensão saúde mental.

Sobre a caracterização "envelhecimento bem-sucedido" e "envelhecimento saudável", nesta dissertação, será adotado o termo envelhecimento bem-sucedido, tendo em vista que nos modelos de envelhecimento que indicam saúde este termo é o mais comumente utilizado

(Aronson, 2020; Young et al., 2009). Por exemplo, os modelos de Baltes e Baltes (1990) e o de Rowe e Kahn (1997). Não existe consenso sobre o conceito *envelhecimento bem-sucedido* (Anton et al., 2015), mas as definições encontradas convergem para pontos em comum, como admitem a importância da pessoa idosa ter condições físicas e comportamentais para se adaptar, e conseguir se envolver em atividades da vida cotidiana (Martin et al., 2014). A seguir serão apresentados alguns modelos de envelhecimento bem-sucedido, os quais esclarecem sobre a assertiva apresentada na frase anterior.

Existem cinco modelos teóricos predominantes na literatura sobre envelhecimento bem-sucedido (Martin et al., 2014; Pruchno et al., 2010). O primeiro é proposto por Baltes & Baltes (1990), é um modelo comportamental do envelhecimento bem-sucedido, que é baseado em medidas de seleção, otimização e compensação comportamental. Segundo este modelo, quanto melhor uma pessoa idosa selecionar, otimizar e compensar seus recursos, perante o inevitável declínio que advém com a idade, mais bem-sucedido será seu envelhecimento. O modelo parte da suposição de que o envelhecimento é uma variável e também um fenômeno plástico, ou seja, essas suposições permitem considerar o envelhecimento como uma construção (Baltes & Baltes, 1990; Grove et al., 2009; Regier & Parmelee 2021). Esta construção ocorre pela interação dos três elementos: Seleção, otimização e compensação de comportamentos; visando um envelhecimento saudável no qual o declínio advindo com o envelhecimento seria minimizado (Gignac et al., 2002; Hahn & Lachman, 2015). A seleção ocorre por restrição do potencial de adaptação aos vários domínios da vida, em que a prioridade é adequar as demandas ambientais às motivações, habilidades, e capacidades biológicas do indivíduo. Implica na redução de alta eficácia aos vários âmbitos da vida, mas pode envolver a transformação da interação com esses âmbitos e até mesmo os objetivos de vida. Portanto, o processo de seleção implica que as expectativas do indivíduo são ajustadas para permitir a experiência subjetiva de satisfação e controle sobre a vida (Baltes & Baltes, 1990). O processo de otimização diz respeito à perspectiva em que as pessoas adotam comportamentos que enriquecem e aumentam seus recursos para maximizar a força de suas escolhas e caminhos na vida, em termos de quantidade e intensidade. E por último, a compensação também é a repercussão da restrição dos potenciais, assim como na seleção. A compensação ocorre quando capacidades comportamentais específicas são perdidas ou reduzidas a um ponto insuficiente para funcionamento adequado. Portanto, são necessários comportamentos que possam compensar o funcionamento perdido ou reduzido de outros. Por exemplo, novas estratégias mnemônicas, incluindo apoios externos, quando os mecanismos

internos não são suficientes (Baltes & Baltes, 1990; Grove et al., 2009; Hahn & Lachman, 2015).

O segundo modelo de envelhecimento bem-sucedido é proposto por Rowe e Kahn (Rowe & Kahn, 1997; Warren, 1998), é uma perspectiva biomédica do envelhecimento bem-sucedido, pois seus critérios de avaliação são fundamentalmente baseados em uma visão médica e objetiva da saúde e do envelhecimento. Considera os seguintes três fatores como caracterizadores do envelhecimento bem-sucedido: 1) baixa probabilidade de doenças e incapacidades gerados por doenças; 2) alto funcionamento cognitivo e físico; 3) e, por fim, engajamento ativo com a vida. O primeiro baseia-se em evidências de que doenças, em quantidade e intensidade, são fatores deletérios para a manutenção de alto funcionamento na velhice (Glass et al., 1995). O segundo critério proposto por Rowe e Kahn (1997), em interação ao primeiro, postula que o alto funcionamento na velhice é devido às capacidades cognitivas e físicas (Albert, et al., 1995; Seeman et al., 1995). Por último, para desfrutar de um envelhecimento bem-sucedido é necessário manter os relacionamentos interpessoais e atividades da vida (Seeman et al., 1994; Glass et al., 1995).

O modelo proposto por Rowe e Kahn (1997), tem sofrido críticas, pois desconsidera dimensões subjetivas para caracterizar o que é envelhecer bem e com sucesso (Cosco et. al, 2015; Pruchno et. al, 2010; Reich et. al, 2020). Existem outros modelos que abordam dimensões subjetivas, apesar de o modelo proposto por Rowe e Kahn ainda ser o mais utilizado nas pesquisas da área (Martin et. al, 2014; Aronson, 2020).

Um modelo que vem ganhando reconhecimento é o proposto por Kahana & Kahana (1996; 2003), em que os fatores para avaliar o envelhecimento bem-sucedido são: recursos físicos e psicológicos; adaptações preventivas e corretivas; e bem-estar psicológico, existencial e social. Este modelo intitulado pelos autores de Proatividade Preventiva e Corretiva (PPC) (Kahana & Kahana, 1996) defende que o envelhecimento deve considerar processos multidimensionais e compreensivos de saúde e bem-estar (Kahana & Kahana, 2003). Em alinhamento com este pensamento, o construto central neste modelo é o de proatividade, que permite abrir espaço para uma definição de envelhecimento bem-sucedido que independe de desfechos. Além disso, permite avaliar a interação entre variáveis internas (pessoais) e externas (ambientais), através da proatividade indivíduos podem modelar seus ambientes e assim facilitar ou constranger suas capacidades de lidar com o ambiente. Portanto, este modelo define envelhecimento bem-sucedido principalmente pelos recursos multidimensionais atuais da pessoa (Kahana & Kahana, 1996; 2003; Martin et al., 2014).

Outro modelo com foco diferenciado dos demais, é o proposto por Phelan e Larson (2002). Este modelo postula que a longevidade é fundamental para avaliar o envelhecimento bem-sucedido. Os critérios estabelecidos são: ausência de incapacidades físicas, independência funcional, satisfação com a vida, engajamento ativo com a vida, longevidade, adaptação positiva e conhecimento. Neste modelo, os autores defendem que o significado de "envelhecimento bem-sucedido" para cada indivíduo deve ser considerado, ou seja, julgam que a auto-percepção do envelhecimento é relevante para definir e medir o construto.

O último modelo apresentado na revisão realizada por Martin et. al (2014) é o proposto por Depp e Jeste (2006), que é fruto de outra revisão da literatura sobre envelhecimento bem-sucedido, especificamente sobre os modelos teóricos e metodológicos do conceito. Propõem um paradigma mais abrangente, por abordar dimensões multifatoriais. No modelo apresentado, o envelhecimento bem-sucedido é avaliado por: funcionamento físico e cognitivo, satisfação com a vida/bem-estar, engajamento social/produtivo, presença de doenças, longevidade, autoavaliação da saúde, personalidade, finanças, autoavaliação do envelhecimento bem-sucedido. Neste modelo, podemos observar que aspectos médicos, objetivos, subjetivos, sociais e econômicos são abordados.

Em outra revisão da literatura, Aronson (2020), três modelos de envelhecimento bem-sucedido são considerados os proeminentes: os já citados e descritos de Rowe e Kahn (1997) e o de Baltes e Baltes (1990), e o terceiro é o proposto por Young, Frick e Phelan (2009), e é caracterizado por Aronson (2020) como modelo multidimensional. Nesse modelo, os componentes chave para medir o construto são fisiológicos (incidência de doenças e capacidade funcional), psicológicos (*coping*, vitalidade emocional e resiliência) e sociais (engajamento com a vida e espiritualidade) (Young et al., 2009).

Ainda sobre os modelos teóricos que avaliam o envelhecimento bem-sucedido, revisões sistemáticas sobre o conceito na literatura revelaram que a tendência dos pesquisadores é postular o conceito mais como unidimensional na perspectiva biomédica (Depp & Jeste, 2006; Pruchno et. al, 2010), enquanto as pessoas leigas têm uma compreensão multidimensional com foco psicossocial (Cosco et. al, 2015, Young et al., 2009). Isso pode significar que as pesquisas têm mensurado algo que não condiz com a real experiência de envelhecer bem e com sucesso percebido pelas pessoas de forma geral. Em uma revisão realizada por Tkatch, Musich, MacLeod, Alsgaard, Hawkins e Yeh (2016) foi constato que programas adotados pelos governos para atenção à saúde de pessoas idosas, enfocam prioritariamente em intervenções médicas, o que contribui para pesquisas que investigam o construto envelhecimento bem-sucedido tenderem para modelos biomédicos. No entanto, em

revisão integrativa realizada por Zanjari e outros (2017) a conclusão é de que o construto vai além dos fatores objetivos (biomédicos), e devem ser sim considerados fatores subjetivos para a definição de um modelo.

Além disso, Strawbridge, Wallhagen e Cohen (2002), evidenciaram que as pessoas podem estar sentindo que estão envelhecendo de forma bem-sucedida e não estarem desfrutando de saúde física, o que sugere que a dimensão física pode não ter peso tão grande no envelhecimento bem-sucedido. Outro exemplo de que o envelhecimento bem-sucedido não é prioritariamente definido pela visão biomédica, é a partir dos resultados coletados por Reich et. al (2020) em sua revisão sistemática que reuniu perspectivas de pessoas leigas de sete etno-culturas diferentes sobre o que significa ter envelhecimento bem-sucedido. Os sete fatores principais mencionados pelas pessoas como importantes para o envelhecimento bem-sucedido em ordem decrescente foram: engajamento social, atitude positiva, independência, saúde física, espiritualidade e saúde cognitiva. Estes resultados indicam, portanto, que aspectos subjetivos podem ter maior peso para caracterizar o envelhecimento bem-sucedido, na perspectiva das pessoas idosas.

Baseado no que pôde-se observar na literatura da área em termos de como é definido o envelhecimento bem-sucedido, para realizar a pesquisa proposta nesta dissertação foi um protocolo de caráter amplo, que situa-se próximo a uma síntese do que existe de conceitualização na literatura, principalmente no que diz respeito aos modelos mais predominantes. Neste estudo será tomado como base a importância dos fatores físicos e subjetivos para avaliar o envelhecimento bem-sucedido. Foram selecionados indicadores que são considerados fundamentais para acessar os fatores físicos e subjetivos. Para avaliar o físico os indicadores são: quantidade de doenças crônicas (de 0 a 8: hipertensão, infarto, diabetes, cancer, osteoporose, artrite, doença cardíaca e doença pulmonar (Pruchno et al., 2010)) e dependência funcional (avaliada pela escala de Atividades Instrumentais da Vida Diária - AIVD (Lawton & Brody, 1969; Santos & Virtuoso Júnior, 2008)). Para avaliar os fatores subjetivos foram utilizadas a Escala de Depressão Geriátrica - EDG (GDS), Escala de Apoio Social (MOS-SSS) (Zucoloto et al., 2019) e uma questão sobre Autopercepção do Envelhecimento (Pruchno et al., 2010), em que o participante faz uma auto-avaliação de seu envelhecimento pontuando-o de 0 a 10. A saúde é um componente objetivo do envelhecimento, no entanto, são também considerados aspectos que concernem a percepção da pessoa idosa sobre o próprio envelhecimento, pois influenciam na experiência do envelhecer bem-sucedidamente (Strawbridge et al., 2002; Depp & Jeste, 2006; Pruchno et. al, 2010). É importante ressaltar a problemática da operacionalização do construto

envelhecimento bem-sucedido. Como não há consenso sobre o conceito, não há medida padronizada que forneça um resultado ou escore que indique envelhecimento bem-sucedido ou não.

2 Objetivos

Esta pesquisa tem como objetivo geral investigar as influências das experiências adversas na infância para o envelhecimento bem-sucedido. A hipótese é que quanto mais adversa a infância, menor será a probabilidade do desfecho envelhecimento bem-sucedido. Além disso, também objetivou-se mapear o panorama da literatura no que diz respeito às estratégias de pesquisa ao verificar associação de indicadores do envelhecimento com as EAIs com pessoas idosas. Outro objetivo da pesquisa é realizar uma descrição das experiências adversas na infância desta amostra de pessoas idosas brasileiras, considerando que, até onde nosso conhecimento alcança, não existem outros estudos que adotaram o EAI-IQ para acessar as experiências da infância de pessoas idosas brasileiras.

3 Justificativa

Evidências sugerem que as condições socioeconômicas da infância, estão associadas aos desfechos na velhice (Felitti et al., 1998; Schafer & Ferraro, 2011; Xiang & Wang, 2020), como saúde/doença, mortalidade e depressão. Em estudo conduzido por Brandt et al. (2012), os resultados mostraram que quanto mais favoráveis eram as condições socioeconômicas na infância, melhores eram os indicadores funcionais físicos e cognitivos das pessoas idosas europeus. Em outro estudo conduzido por Schafer e Ferraro (2011), os resultados evidenciaram que pessoas idosas que perpassaram por abusos físicos e emocionais e dificuldades financeiras quando eram crianças, tiveram maior probabilidade de desenvolver alguma doença na velhice. Evidências do Estudo Longitudinal Wisconsin, em artigo de Greenfield e Moorman (2018), mostram que o *status* socioeconômico na infância é preditor de funcionamento cognitivo e da linguagem na velhice.

Considerando-se que as evidências da literatura sugerem fortemente que mazelas vividas pelas pessoas idosas têm origem nas experiências da infância (Ancelin et al., 2021; Felitti et al., 1998; Sachs-Ericsson et al., 2015; Xiang & Wang, 2020; Schafer & Ferraro, 2011; Brandt et al, 2012; Greenfield & Moorman, 2018), é de extrema importância investigar mais aprofundadamente este fenômeno sob a perspectiva do desenvolvimento humano. Além

do mais, não foram encontrados estudos que investigaram como experiências adversas na infância influenciam no envelhecimento em nenhuma população brasileira. Este fato também corrobora com a importância de conduzir o estudo aqui proposto, tendo em vista as diferenças culturais e sociais brasileiras comparadas aos países nos quais a maioria das pesquisas já foi conduzida (Aronson, 2020; Reich et al., 2020), que estão no eixo do hemisfério norte. Além disso, tendo em vista o perfil da população idosa brasileira (Araújo & Alves, 2000), conduzir o estudo com esta população também se faz relevante. Araújo e Alves (2000) apontam que o número de pessoas idosas no Brasil tem aumentado consideravelmente, e que este grupo tem características específicas. Mais da metade dos pessoas idosas brasileiras em 1997 relataram ter estado de saúde regular ou ruim e ter algum problema de saúde (incluindo doenças crônicas). As autoras indicam também que a população idosa é a que mais busca por serviços de saúde e conferem os maiores gastos per capita com estes serviços dentre a população em geral. Portanto, é de inegável importância entender melhor sobre o envelhecimento bem-sucedido na população brasileira, e os fatores da infância que contribuem para o adoecimento. Será de relevância para a literatura científica internacional e será o primeiro a contribuir para o entendimento do fenômeno no Brasil. Abrindo espaço assim para novos estudos, para a promulgação de possíveis intervenções no âmbito da saúde e criação de políticas públicas que sejam de interesse da população, baseado nos resultados que serão encontrados por este estudo.

4 Artigo de Revisão

A scoping review of how the influences of Adverse Childhood Experiences have been researched with older adults subjects

Abstract

Influences of childhood adverse experiences on late life is a relatively recent interest topic of study. The oldest publication on the theme, concerning the term as conceptualized in the literature, is dated as 1996. With a major growth of publications starting in 2014. In this scoping review the main objective was to identify the cross-sectional studies that investigated the associations between childhood adverse experiences (ACE) and outcomes in old age. A secondary objective was to identify which studies used the ACE-IQ, that is the standardized instrument to be used with adult subjects to assess adverse childhood experiences. Another secondary objective, but of utmost importance to the field research, was to analyze the limitations and biases found in these studies. The intent of doing that is to make it possible to design better study methodologies regarding this human development topic of research. Three databases were selected to screen registries: PubMed, PsychInfo and Web of Science. Of 277 registries 72 were included in the review. Eligibility was designed in a manner that only studies that researched associations between ACEs and outcomes in late-life (60 years old and above) were included, and investigated ACEs retrospectively with elderly people. The results of this review show that most studies focus on outcomes such as depressive symptoms and chronic diseases that are associated with ACEs. The majority collected evidence suggests positive associations between these variables. Furthermore, the results show that most researchers did not use the ACE-IQ. And in addition, recall bias is a consensus but there are strategies to attenuate this effect. Some limitations in this review were noted in the discussions, and in conclusion it was observed clearly the collected evidence suggests that ACEs implicates late-life multidimensionally, but further longitudinal studies are required.

Key-words: Adverse Childhood Experiences, Childhood Maltreatment, Older Adults, Late Life, Healthy Aging.

Introduction

Childhood experiences may impact life in short and long term. The literature points out that childhood has implications for healthy or pathological aging (Gilgoff et al., 2020; Pace et al., 2022; Xiang & Wang, 2020). In a study conducted by Brandt et al. (2012), elderly people who faced more favorable conditions in childhood were much more likely to have an aging process without pathologies. Corroborating these results, Schafer and Ferraro (2011) showed that various misfortunes in childhood (for example, abuse and economic difficulties) led to a higher probability of having illness in adulthood and old age. In another study by Felitti et al. (2019) with older adults, the results suggest that adverse childhood experiences (ACE) decrease longevity. These adverse events are characterized by psychological, economic, social factors and the relationship with parents or caregivers (Felitti et al., 1998; Pereira & Viana, 2021).

Recent increasing evidence in the literature on the subject indicates an association between childhood adversities and compromises to healthy aging (Ancelin et al., 2021; Chen et al., 2021; Gold et al., 2021; Lin et al., 2021; Pace et al., 2022). There is evidence suggesting implications to late-life in a multidimensional manner. For example, in a study conducted by Rehkopf et al. (2016), evidence indicates that adverse childhood experiences influence on healthy habits in old age – behavioral health dimension. In this study by Lin et al. (2021) results have shown that ACEs influence the probability to develop chronic diseases in late-life – physical health dimension. Another example is exhibited in the article by Gold et al. (2021), indicating that ACEs influence cognitive performance in old age - cognitive dimension. In addition, there is a study conducted by Chen et al. (2021) suggesting that depression in the elderly population is associated with ACEs - mental health dimension. And finally, there is also evidence suggesting that ACEs favors abuse victimization in late-life (Chen & Fu, 2022) - social dimension. As these results of recent research point out, the repercussions of ACEs in older age are multidimensional.

As observed in the examples above, and as it was reviewed in the literature for this article, the predominant term to characterize the environmental phenomenons of childhood that have implications on the course of life – including old age – is Adverse Childhood Experiences. Thus, it is relevant to understand in what contexts of research this term is being used. As concerns this article, it is of utmost importance to understand specially how it is being employed on research of old age outcomes in association with these early life experiences.

There is a growing number of articles being published recently about associations between childhood adverse experiences and its implications to late-life (as it will be disclosed in the results section of this article). Hence, it is important to review and organize what is being researched, so that it will facilitate an overview about the topic and the literature review for future studies.

This study was designed as a scoping review (Liberati et al., 2009; Pereira & Galvão, 2014), which aims to map the main concepts and ideas concerning any field of knowledge, and to understand how certain constructs have been studied and to identify gaps and limitations of the concepts or research methods. Based on this assertion, the present study intends to carry the task of a scoping review regarding the association between the concept of "adverse childhood experiences" and aging. Particularly about the influences of the former on the latter, considering that this review admits and is based on the perspective of life-span development (Baltes et al, 2006), which means that human development is considered as the understanding that events during the course of life promote influences and impacts and reverberate on aging process.

The main objective of this review is to identify articles that focus on retrospectively investigating ACEs (Petruccelli et al, 2019) with elderly subjects, and associating these dependent variables with outcomes related to aging or old age. Therefore, in this review were included studies with participants that were 60 years or older.

The review also has two secondary goals. The first is to identify the biases and limitations observed in the included articles and the problems found in the retrospective assessment of childhood in elderly subjects. The other secondary objective is to identify articles that use the *Adverse Childhood Experiences - International Questionnaire (ACE-IQ)* to assess the adverse childhood experiences of elderly subjects.

The intention with these objectives is to analyze how the investigation of ACE is being conducted with elderly subjects, to then enable more clear directions to establish better studies designs that will investigate the influence of ACE with the elderly, thus enabling more reliable and accurate results. And also to determine which associations are being investigated to facilitate research directions.

Utilization of the ACE-IQ

In this review, one of the objectives is to obtain an overview of the usage of the ACE-IQ in research with the elderly subjects. Articles that employed other instruments to

investigate childhood retrospectively were not excluded, as this review also aims to analyze and discuss the restrictions and biases of retrospective research. To this extent, we intend to understand how the ACEs have been investigated, giving greater emphasis to the ACE-IQ. The selection of this instrument was justified by the fact that it was developed by an international community of scientists patronized by the the WHO and the Center for Disease Control and Prevention (CDC), with the purpose of producing a standard instrument that would work worldwide, that would enable transnational comparison (Pereira & Viana, 2021; Pace et al., 2022). Until its establishment in 2011, there were no instruments available with the same validation characteristics to assess adverse experiences in childhood for people who are over 18 years old.

Methods

This study is designed as a scoping review. Arskey and O'Malley (2005) define scoping review as a rapid strategy for mapping key concepts underpinning a research area, and by doing so, it identifies the main sources and evidence available. Therefore, scoping reviews seek to provide in-depth coverage of available literature concerning the objective of the review in question. This review proposes to cover the literature relating ACEs to outcomes in old age.

Eligibility Criteria

The eligibility criteria for locating the publications are presented as follows. To be included, articles would have to be researching subjects aged 60 or older, investigating retrospectively ACEs with elderly subjects (only with quantitative methodology), and to consider any kind of outcome in old age associating them with adverse experiences in childhood. And about the exclusion criteria studies with longitudinal data collection and analysis for ACE, studies with most participants under age 60, and those which consider an isolated event (e.g. one time robber, one time stricken by severe disease, one time separated from caretaker for brief or long period) in childhood as ACE construct. Two judges, a master's student and a graduate student in psychology, screened the articles to verify their eligibility. Five articles were motif of disagreement about their eligibility among the judges, after discussion a consensus was met. The selected articles were analyzed according to the objectives of this review study. More details on the variables involved in defining the

eligibility criteria are described in the following sections. Only articles reviewed by pairs and published in scientific journals were included.

Exposures in Childhood

Adverse childhood experiences (ACE) is a concept that has captured the attention of researchers due to its empirical reinforcement (Hughes et al., 2017; Petruccelli et al., 2019; Scully et al., 2020) that childhood events influence the lives of individuals during life, in which the research became more pronounced since the ACE Study, marked by the publication by Felitti et al. (1998). The concept of ACE can be defined as any experience before age 18 that consists of any of the following categories: physical, emotional, or sexual abuse; physical or emotional neglect; violence between family members; family members abuse substances, suffer from mental illness or suicidal attempts; a family member has been incarcerated. For the purpose of this review, studies that investigated adverse experiences in childhood, but used different terminology, were also included, for example: childhood adversities (Easton & Kong, 2020; Tian et al., 2019) or early childhood adversity (Yazawa et al., 2022). Despite the difference of terms, based on our understanding it was verified that these studies investigate equal, similar or equivalent categories. Therefore, they were considered eligible according to the purpose of this study.

Types of Outcomes and Age

The only restriction regarding the outcomes screened in the included registries was that they must be related to old age. For example, depression in old age (Iob et al., 2020; Ward et al., 2020), cognitive functioning in old age (Ritchie et al., 2010; Xiang et al., 2022), chronic disease incidence in old age (Amemiya et al., 2019; Vásquez et al., 2019). With regard to the inclusion criteria age and old age, the cut-off age was set at 60 years, as defined by the WHO (World Health Organization, 2021). This review includes some articles with subjects under 60 years of age. These ones were included because the average age of participants is greater than 60 or the largest proportion of participants was over 60 years of age. Consequently, it was considered valid for the purpose of this review to include these studies, considering that they cover a significant number of people over 60 years old.

Search Strategy

Three databases were selected to screen publications corresponding to the objectives of this review: PubMed, PsychInfo and Web Of Science. A base that focuses on general health (PubMed), another on psychology (PsychInfo) and the third broadly generalist (Web of Science). This niche differentiation of each database was important to find articles from different contexts with different study objectives and variables. More details about the search engines and keywords can be found in Table 1. The search consisted of the following keywords, of which at least one should appear in the title of the articles: "Adverse childhood experiences", "childhood misfortune", "childhood adversity" or "adverse childhood", in addition to any of the following terms: "elder", "elderly", "older adults", "old age", "older age", "late life" or "later life". Such terms were enough to delimit the variables of interest and the age of the participants. Terms that could restrict to cross-sectional studies were not applied, given that the authors were already aware that studies with a longitudinal design could contain some retrospective investigation on childhood with elderly subjects, which is of interest to this review. And indeed, some of the selected articles have such a format (Mian et al., 2021; O'Shea et al., 2021; Yang et al., 2019).

The age of the participants also ended up being delimited by the keywords. Although some studies also included subjects who were not elderly, they were included when the number of participants over 60 years old was significant (Park et al., 2015; Yang et al., 2019; Zaborenko et al., 2020). These studies do not deviate from the objective of the review, as they still contain elderly participants who responded to the ACE-IQ and other instruments that contemplate ACEs retrospectively. Therefore, the same limitations and biases are present in articles that contain only elderly subjects.

The search began on September 10, 2022, and was updated periodically over the next three months. For this purpose a list of terms was created, and adapted according to the language or syntax required by each database.

Table 1

Search engines and keywords

Databases	Search terms
PubMed	[Adverse childhood experiences OR childhood misfortune OR childhood adversity OR adverse childhood]

LILACS	AND
PsycInfo	[elder OR elderly OR older adults OR old age OR older age OR late life OR later life]

Study Selection

Searches yielded 277 records in total, 122 records were repeated and excluded. The remaining 155 were analyzed by the two judges independently, but according to the eligibility criteria. A 96.77% compliance was observed between the two. Nonconformities were resolved based on consensus among the judges, in a discussion based on the criteria. In the end, 72 publications were included to be analyzed for data extraction.

This process was illustrated in the diagram, presented in Figure 1, according to the PRISMA norms.

Figure 1

Flow diagram summing up the whole process of screening and selection of the studies
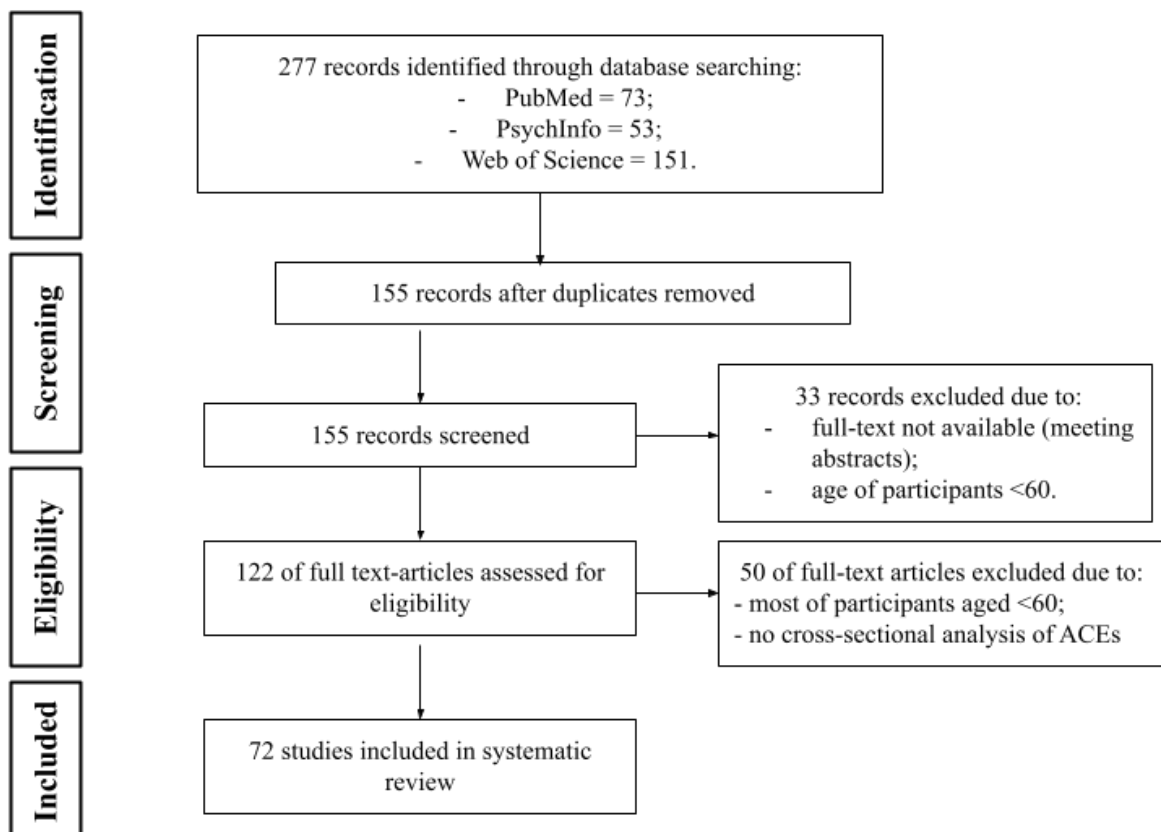
Data Extraction

A protocol was established to extract data of interest from selected publications. Specifically, the protocol contained the following data to be retrieved when available:

(1) Basic information and context of each study: Authors, year of publication and country where the study was conducted;

(2) Information regarding the characteristics of each study: Sample size, Independent Variables, Outcome Variables, Dimension corresponding to the Outcome Variables, Moderating Variable, Mediating Variable and whether the ACE-IQ was used in data collection;

(3) Information regarding possible complications or caveats: The biases and limitations discussed in each article.

An overview of the extracted information is shown in Table 2, in the Results section.

Categorization of Outcome Variables

The outcome variables were categorized into dimensions in order to facilitate the visualization of which types of outcomes are being investigated. In most of the articles included in the review, the dimension of the outcome variable was not made explicit by the researchers. In these cases, it was defined by the authors of this review, based on the literature on aging (Depp & Jeste, 2006; Martin et al., 2014). Seven dimensions were identified for the outcome variables: Physical/Biomedical Health, Mental Health, Social, Behavioral, Cognitive, Psychological/Subjective and Genetics. More details on the dimensions observed in each article in Table 2.

Results

The main characteristics of the studies are available in Table 2. It was observed that the studies were quite heterogeneous in terms of sampling, period and location investigated. The study with the smallest sample included 50 participants and the study with the largest studied population obtained N = 27748 (mean = 7544.958). There were 29 studies conducted in Asia (16 in China), 23 in North America (21 in the United States), 20 in Europe, one in South America and one in Oceania. The oldest publication is from 1996 and the most recent from 2022, with publications from the last five years being predominating (59.72%).

This review included 72 studies that investigated relationships between ACEs and aging outcomes. It was observed that there is an increasing number of articles being published each year. Figure 2 shows the growth.

Figure 2

Frequency of publications by year
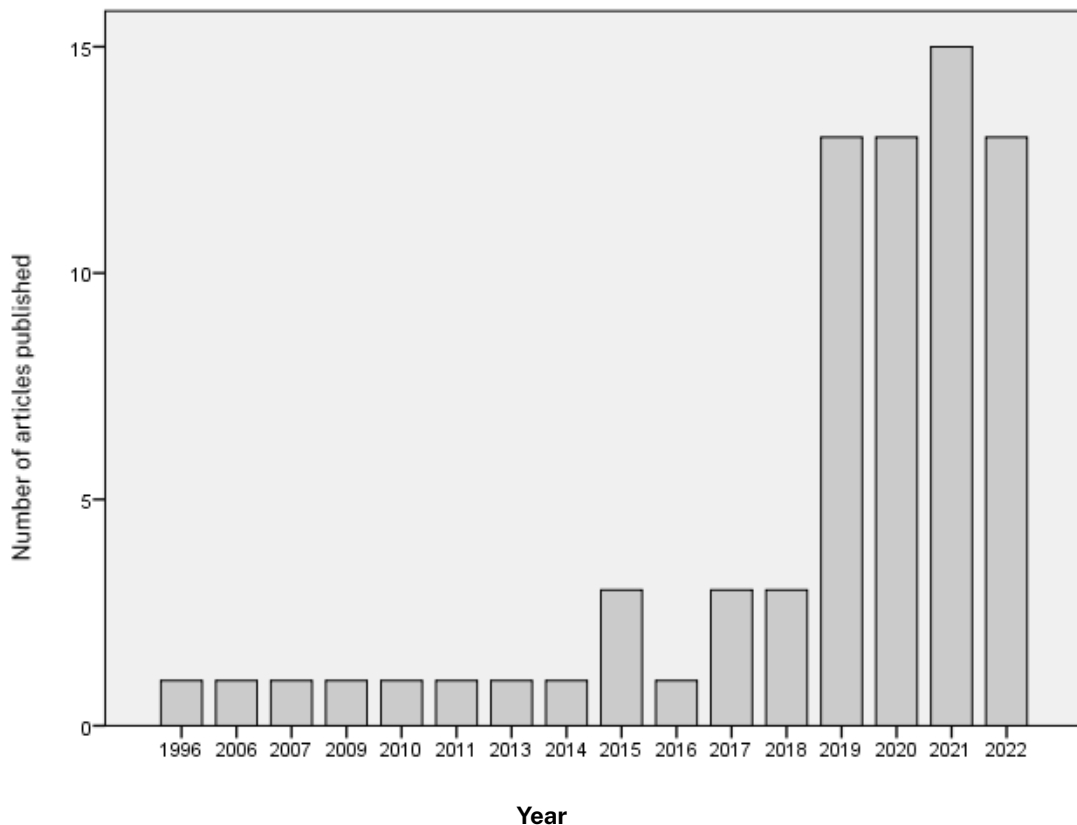
Regarding the use of the ACE-IQ, 6 articles used the instrument in its entirety, 10 adapted it to their own version, 4 used it in part, and 5 based it on it to define their questions. Regarding the dimensions of the outcome variables, 32 investigated the physical/biomedical health dimension, 32 the mental health dimension, 12 the cognitive dimension, 4 the social dimension, 2 the psychological dimension, also 2 the behavioral dimension, finally one study investigated genetics and one investigated the socioeconomic dimension. More details about the dimensions can be seen in Table 2.

With regard to biases, it is agreed that memory bias is an issue to be considered, although in most investigations it was concluded that its impact was minimal (in 80.55%). In only 10 studies, no reference was made to the problem of memory bias in the retrospective investigation of ACEs. Other biases cited in the reviewed studies were: social desirability

(Asyraf et al., 2021; Easton & Kong, 2020; Klopack et al., 2022), survival bias (Mian et al., 2022; Nilaweera et al., 2022; Schickedanz et al., 2021) and depression (Yazawa et al., 2022). According to Liao et al. (2021), people with depression tend to report a higher incidence of ACEs. Parallel to these observations, one study pointed out that severe abuse experienced in childhood is hardly overreported or false (Raposo et al., 2013). Also, Cheval et al. (2019) cited that previous research indicated that retrospective instruments to assess exposure to adverse experiences in childhood have satisfactory validity. Lin et al. (2021) also mentions that retrospective instruments for ACEs have good reliability.

As for limitations, the following were mentioned: impossibility of accessing the intensity and frequency of ACEs; difficulty in specifying at which age the ACEs occurred; and lack of information about lifetime behaviors that may be associated with outcomes (Dorji et al., 2020). Another methodological limitation, cited by von Arx et al. (2019), Comijs et al. (2007) and Yuan et al. (2022), is that data collected in retrospective research is underreported. Table 2 shows the descriptive data of the results.

Table 2

Articles included in the scoping review

Author	Year	Age (mean)	ACE-IQ	Dimension of Outcomes	N
Lin et al.	2021	45+ (59,85)	Adapted	Physical/biomedical health	11972
Xiang & Wang	2020	51+ (65,4)	No	Mental health	16946
Zaborenko et al.	2020	50+ (62,97)	No	Physical/biomedical health	12473
Asyraf et al.	2021	60-93 (69,2)	Yes	Physical abuse, psychological abuse, sexual abuse and financial abuse	1984
Cheval et al.	2019	50-96	No	Physical/biomedical	24179
Chen & Fu	2022	65+ (74,9)	No	Social	1002
Iob et al.	2020	50+ (69,94)	No	Mental health	4382
Yanagi et al.	2020	65+ (73,4)	No	Behavioral	21352
Henchoz et al.	2019	65-70	No	Physical/biomedical	4055

O'Shea et al.	2021	54+	No	Cognitive	5223
Dorji et al.	2020	60-101 (71,5)	Yes	Physical/biomedical and Mental health	337
Kuuire	2019	15+	No	Mental health	6452
Kim et al.	2019	55+	Adapted	Mental health	11386
Maier et al.	2022	74-91	No	Physical/biomedical and Mental health	185
Mian et al.	2022	45-85 (59,3)	No	Physical/biomedical	27748
Yang et al.	2020	45-101	Adapted	Physical/biomedical	14093
Danielson & Sanders	2018	55-76	Adapted	Physical/biomedical and psicológica/subjetiva	1017
Kwak & Ahn	2019	60+	No	Mental health	4105
Larkin et al.	2017	55+	Yes	Mental health	250
Gold et al.	2021	65+	No	Cognitive	1661
Xiang et al.	2022	51+	No	Cognitive	15133
Amemiya et al.	2019	65+	No	Physical/biomedical and comportamental	23476
Ward et al.	2020	54-95 (66,4)	No	Mental health	6127
Rhee et al.	2019	65+	Partially	Mental health	5806
Johnson et al.	2019	65+(63,8)	Based on ACE-IQ	Physical/biomedical	2152
Comijs et al.	2007	55-85 (69,3)	No	Mental health	1887
Ritchie et al.	2010	65+	Based on ACE-IQ	Cognitive	1282
McCrory et al.	2015	50+ (63,9)	No	Physical/biomedical	6706
Wilson et al.	2006	79,8	No	Psychological/Subjective	253

Kiecolt-Glaser et al.	2011	69,7	No	Physical/biomedical	132
Schickedanz et al.	2021	65-96 (73,4)	No	Physical/biomedical	1488
Ritchie et al.	2009	65+	No	Mental health and genetics	942
Yuan et al.	2021	60+	Partially	Cognitive	7222
Vásquez et al.	2019	55+	No	Physical/biomedical and Mental health	10727
von Arx et al.	2019	50-96	No	Mental health	8357
Lin et al.	2022a	45-95	No	Physical/biomedical	7209
Nilaweera et al.	2022	65+	No	Cognitive and Physical/biomedical	1562
Vásquez et al.	2019	55+	No	Physical/biomedical and social	10548
Yazawa et al.	2022	65+	Adapted	Mental health	7271
Küffer et al.	2016	60+	No	Mental health	129
Jiang & Jiang	2022	60+	No	Mental health	8494
Prigerson et al.	1996	60+ (70)	No	Mental health	50
Roh et al.	2015	50-95 (60,7)	Yes	Mental health	233
Sheffler et al.	2021	54-93 (69,6)	Yes	Mental health, Cognitive and Physical/biomedical	510
Klopack et al.	2022	68,98	Partially	Mental health	2672
Iob et al.	2021	50+	No	Mental health	3343
Verropoulou et al.	2019	50+	No	Mental health	23768
Xiang & Wang	2020	51+	No	Mental health	16946
Wang et al.	2019	45+	No	Mental health	11666

Hwang et al.	2017	64-75	No	Physical/biomedical	1998
Radford et al.	2017	60-92	No	Physical/biomedical and Cognitive	296
Zhang et al.	2022	45+	No	Physical/biomedical	17115
Zhang et al.	2021	45+	No	Physical/biomedical	17091
Lin et al.	2022b	45+	Adapted	Physical/biomedical	10054
Tani et al.	2020	65+ (73,5)	Adapted	Physical/biomedical and Cognitive	17412
Henchoz et al.	2018	65-70	No	Physical/biomedical	4731
Inoue et al.	2021	65+	No	Mental health	8701
Liao et al.	2021	60+	Adapted	Socioeconomic	9910
Lin et al.	2021	45+	No	Cognitive	6700
Hu	2021	60+	Adapted	Physical/biomedical, Cognitive and Mental health	9248
Nishio et al.	2022	65+	No	Mental health	5671
Park et al.	2015	50-70	Yes	Mental health	137
Demakakos & Steptoe et al.	2022	55-79	No	Physical/biomedical	587
Yang et al.	2020	45+	No	Mental health	13710
Morton et al.	2021	60,47	Based on ACE-IQ	Physical/biomedical	9301
Amemiya et al.	2018	65+	Based on ACE-IQ	Physical/biomedical	19220
Hu & Wei	2021	60+	Based on ACE-IQ	Physical/biomedical	2186
Koyama et al.	2022	65-84	Partially	Physical/biomedical	491

Tian et al.	2019	45+	No	Mental health	17425
Raposo et al.	2013	65+	No	Mental health	7080
Easton & Kong	2020	70-73 (72,14)	Adapted	Social	5968
Korten et al.	2014	65-85	No	Cognitive	1312

Discussion

Characteristics of Analyzed Records

The present review sought to identify articles that investigated the effects of ACEs in old age, and showed how the accumulated evidence suggests the unfavorable influence of ACEs in a multidimensional way. Nevertheless, there is a notable predilection of research to investigate the associations between ACEs and physical and mental health outcomes. It should be noted that the need to encompass this phenomenon in a multidimensional way is already consolidated in aging research. The advancement of these productions consists of the interest in adverse experiences in childhood and their influences until the later stages of development.

This review allows researchers in the area to have knowledge about the limitations and biases found in research, enabling better decision-making on the strategies to be adopted in cross-sectional research on this topic.

The growing number of publications shows how the scientific community's interest in the impact of ACEs has been growing, for a topic that is relatively new, with the first publication, of Prigerson et al. (1996), being less than 30 years old.

Table 3

Articles that investigated physical and mental health outcomes

Author	Year	Dimension
Lin et al.	2021	Physical/biomedical health
Xiang & Wang	2020	Mental health
Zaborenko et al.	2020	Physical/biomedical health

Cheval et al.	2019	Physical/biomedical
Iob et al.	2020	Mental health
Henchoz et al.	2019	Physical/biomedical
Dorji et al.	2020	Physical/biomedical and Mental health
Kuuire	2019	Mental health
Kim et al.	2019	Mental health
Maier et al.	2022	Physical/biomedical and Mental health
Mian et al.	2022	Physical/biomedical
Yang et al.	2020	Physical/biomedical
Danielson & Sanders	2018	Physical/biomedical and psychological/subjective
Kwak & Ahn	2019	Mental health
Larkin et al.	2017	Mental health
Amemiya et al.	2019	Physical/biomedical and behavioral
Ward et al.	2020	Mental health
Rhee et al.	2019	Mental health
Johnson et al.	2019	Physical/biomedical
Comijs et al.	2007	Mental health
Dooley & Layte	2015	Physical/biomedical
Kiecolt-Glaser et al.	2011	Physical/biomedical
Schickedanz et al.	2021	Physical/biomedical
Ritchie et al.	2009	Mental health and genetics
Vásquez et al.	2019a	Physical/biomedical and Mental health
von Arx et al.	2019	Mental health

Lin et al.	2022a	Physical/biomedical
Nilaweera et al.	2022	Cognitive and Physical/biomedical
Vásquez et al.	2019b	Physical/biomedical and social
Yazawa et al.	2022	Mental health
Küffer et al.	2016	Mental health
Jiang & Jiang	2022	Mental health
Prigerson et al.	1996	Mental health
Roh et al.	2015	Mental health
Sheffler et al.	2021	Mental health, Cognitive e Physical/biomedical
Klopack et al.	2022	Mental health
Iob et al.	2021	Mental health
Verropoulou et al.	2019	Mental health
Xiang & Wang	2020	Mental health
Wang et al.	2019	Mental health
Hwang et al.	2017	Physical/biomedical
Radford et al.	2017	Physical/biomedical and Cognitive
Zhang et al.	2022	Physical/biomedical
Zhang et al.	2021	Physical/biomedical
Lin et al.	2022b	Physical/biomedical
Tani et al.	2020	Physical/biomedical and Cognitive
Henchoz et al.	2018	Physical/biomedical
Inoue et al.	2021	Mental health
Hu	2021	Physical/biomedical, Cognitive and Mental health

Nishio et al.	2022	Mental health
Park et al.	2015	Mental health
Demakakos & Steptoe et al.	2022	Physical/biomedical
Yang et al.	2020	Mental health
Morton et al.	2021	Physical/biomedical
Amemiya et al.	2018	Physical/biomedical
Hu & Wei	2021	Physical/biomedical
Koyama et al.	2022	Physical/biomedical
Tian et al.	2019	Mental health
Raposo et al.	2013	Mental health

In terms of physical health, the focus was on the incidence of chronic diseases in old age, and on mental health in processes of mental illness, particularly the incidence of depression/depressive symptoms, as in the studies by Nishio et al. (2022) and Park et al. (2015). On the other hand, hardly any research is published associating ACEs with broader social or psychological aspects, such as behavior (Yanagi et al.), personality (Prigerson et al., 1996) and subjective perceptions about life and aging (Vásquez et al., 2019; Nishio et al., 2022). Although there is already a considerable collection of data showing a association between ACEs and unfavorable outcomes in old age, it is not possible to establish any causal relationship between the variables, at least with regard to the cross-sectional studies included in this review. However, considering the search and screening stages of this review, this process indicates that studies with a longitudinal design are rare. It is possible to make this statement based on the search and screening of this review because there were no search terms that limited it to only cross-sectional studies, therefore longitudinal records or cohort studies could easily have appeared. Although these studies were registered in the search for this review, in all of them, without exception, data on ACEs were accessed retrospectively, that is, by elderly participants answering questionnaires about adverse childhood experiences. However, there are cohort studies that accessed data on childhood maltreatment and showed the influence of these experiences in adult life, but not in old age (McKay et al., 2020). To the best of our knowledge, no studies have been published that have investigated the influence of

ACEs on old age prospectively. In the review of this type of study carried out by McKay et al., (2020), only 23 studies were included. In that review, 3 categories were defined by the authors to analyze the ACEs investigated, and 10 articles were found that addressed maltreatment, 8 parental loss and 7 bullying. The review also showed that there is longitudinal evidence indicating that trauma in childhood and adolescence leads to mental health harm in adult life. It can be deduced that there are few data available that point to possible causal relationships between ACEs and later life outcomes. And none that have investigated outcomes specifically in old age.

Another important observation concerns the concentration of studies in certain parts of the world. Publications are mostly concentrated in China and the United States. This makes the synthesis of the results tend to the profile of these countries, not allowing a greater generalization to other contexts. It should be noted that there were fewer studies in regions where adversities are more common in childhood, such as Latin America and Africa. In this review there is only one article with data from Latin America and none with data from Africa. According to data provided by the Organization for Economic Co-operation and Development (OECD), children in these regions are more vulnerable (OECD, 2019). So, the effects of ACEs in these places where adversities should be more widely studied are still unknown to support the development of public policies aimed at protecting and promoting physical and mental health at all ages.

Few studies were also found that included mediating and moderating variables in their investigations (Iob et al., 2020; Wang et al., 2019; Zaborenko et al., 2020). It would be relevant to investigate how the associations between ACEs and aging are influenced by other variables to broaden the understanding of what may or may not be favoring the impacts of these experiences in old age. Thus, it is suggested that investigations be expanded to include factors that, throughout life (between childhood and old age), may be interfering with the association between ACEs and outcomes in late life.

About the Assessment Instruments, Biases and Limitations

From the results collected in this review, it became evident that there is still no consensus on which instrument to use to access the ACEs with elderly subjects. As the objective of this research was to evaluate the use and frequency of use of the ACE-IQ in these studies, we were able to identify that 34.72% of the articles included used the ACE-IQ in some way or another, either entirely, partially or adapted, showing that there is no strong

adherence to this instrument despite being recommended by the WHO and being the result of the study that consolidated the concept of Adverse Experiences in Childhood (Felitti et al., 1998), which is part of the ACE Study conducted by the Centers for Disease Control and Prevention (CDC).

Among the studies that used the ACE-IQ in part or in an adapted form, the authors resort to some justifications for not adopting the complete instrument, which may give some clues as to why the instrument is not more widely used. Motivations include: issues of adaptability of the ACE-IQ to the research population; existence of questions in the questionnaire that may make the elderly uncomfortable; existence of items that would access variables that would not be of interest to the research (Klopack et al., 2022; Rhee et al., 2019; Yuan et al., 2022). Regarding adaptability, some authors argue that the original population in which the instrument was validated primarily consists of middle and high-income people, which may be an implication if the research subjects are of lower income. Regarding the assertion that the elderly could be uncomfortable with a question in the questionnaire, it is understandable that in some cultures certain subjects are taboo and undesirable to be addressed. However, when these items are excluded, the results may have an unwanted bias, reducing the quality of the research. In addition, it is accepted that moral factors can override ethical research values, considering that the loss of information can prevent the study of phenomena in the way they occur. On the other hand, by identifying and understanding the occurrence of phenomena, such as ACEs, one can support strategies that seek to improve the quality of life of the studied population. An alternative to be adopted by ACE researchers is to grant participants the right not to answer these questions. Regarding the last justification cited for not using the ACE-IQ in its entirety, which is about some items accessing experiences that were not of interest to the research, the implication of this measure is that the conclusion about what is researched becomes less broad, that is, it would not be possible to deduce that the ACE construct, in its entirety, would be associated with a certain outcome in old age. For example, if the researchers were only interested in the experiences of physical abuse and emotional neglect and their relationship with depression in old age, the conclusion would be limited to these experiences, and it would not be possible to extend the interpretation to the concept of ACE.

Another reason why many studies have not adopted the ACE-IQ is that their research used databases available from other large studies, such as the China Health and Retirement Longitudinal Study (CHARLS) (Tian et al, 2019; Yang et al. , 2019; Yang et al., 2020), the Health and Retirement Study (HRS) (Xiang & Wang, 2020; Xiang et al., 2022) and The Irish

Longitudinal Study on Aging (TILDA) (McCrory et al., 2015; Ward et al., 2020). In these primary studies, available data on childhood adversity were collected using instruments other than the ACE-IQ. It is important to emphasize that these data on childhood were collected retrospectively, as the subjects were already older, despite being longitudinal studies.

Even with the different instruments used, the limitations found in the retrospective collection, in general, were similar. It was a consensus among the authors that memory bias is an implication for this type of research. Some studies sought to minimize the impacts of this bias with certain strategies. The most commonly adopted was the inclusion of an instrument to measure cognitive functionality (Zaborenko et al., 2020) or the presence of dementia symptoms (Yuan et al., 2021), with the aim of including only subjects with memory preserved. This strategy, despite ensuring greater reliability of the data collected, excludes the possibility of investigating whether ACEs may be related to memory impairment or dementia.

The researchers who adopted the ACE-IQ argue that the questionnaire has good test-retest consistency with older adults and that, therefore, it would be a reliable measure for accessing childhood experiences despite memory bias (Dube et al., 2003; Larkin et al., 2017). Considering this aspect, the ACE-IQ has an important feature to minimize biases and limitations. Another frequently cited bias is that of survival, a limitation common to all research with the elderly, especially when dealing with the oldest elderly. Finally, another widely discussed bias was that of social desirability. In this case, it should be considered that, when dealing with a face-to-face interview, this bias will be present. One strategy to minimize this bias is to use non-face-to-face collections or instruments that can be applied in a self-administered manner.

Limitations of this Review

From the present review, it was highlighted that there is strong evidence of the association of ACEs with unfavorable outcomes in old age. However, it is prudent to understand this statement considering some of the limitations of the present review. The first is that this review did not assess the quality of the included studies.

Another limitation is the number of records that were included, which in general can be considered small (N= 72). However, this limitation was due to the fact that the amount of research in the area is still scarce, and the percentage of articles included after the search was still high (25.99%). But even so, it is important to consider that the knowledge generated on the subject reviewed is still limited by the amount of work available. In this way,

investigations on ACE need to be continued and the results already obtained show the relevance of expanding knowledge on this topic and its influences on old age.

Conclusion

From what was exposed and analyzed, and considering the objectives of the scoping review, a detailed description of the studies that fit the profile adopted by the review was carried out, which consisted of research that investigated the association between ACEs and outcomes in old age, with the retrospective collection of ACEs. The descriptive analysis carried out indicates that the most widely researched variables were about the physical and mental health of the elderly. The articles included present evidence that there are associations between ACEs and unfavorable outcomes in old age, so we conclude that there is a consensus in the literature that these two variables are correlated, and that it is an area of knowledge that needs to be further explored, especially in research that can establish causal relationships between these two variables.

As for the objective of identifying studies that used the ACE-IQ, it was concluded that this instrument is adopted on a small scale, despite its good reliability and confirmed construct validity. Thus, the lack of standardization in research for measuring ACEs and the need to reach consensus on this construct is highlighted.

About the biases and limitations, which refers to the last objective of this review, it is possible to conclude that the limitations are notable and consensual. In this sense, the mapping of these biases and limitations indicated that researchers need to outline their studies with strategies to minimize the effects of memory, survival and social desirability biases.

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5 Artigo Empírico

The influence of adverse childhood experiences on successful aging: a cross-sectional study with brazilian older adults

Abstract

Adverse Childhood Experiences (ACEs) are events that occur before the age of 18 that have the potential to cause harm in later life. ACEs have been linked to negative outcomes, including poor physical and mental health, social and economic disadvantage, and decreased life expectancy. This study adopted a cross-sectional design to investigate the association between ACEs and successful aging in a sample of Brazilian elderly (N = 356). The general objective of this study was to describe ACEs and to verify the association of these events with indicators of successful aging. Although successful aging is a concept that is still under development of consensus in the scientific community, we approach this concept mainly through the presented on the review by Martin in 2014, and the Two Factor Model proposed by Pruchno in 2010, to collect data on the indicators of successful aging. From these two references, indicators of successful aging were selected, which were collected using the following protocol: The Lawton Scale of Instrumental Activities of Daily Living; Chronic Illnesses (Eight questions to identify the presence of eight chronic illnesses); Self-perception of Aging (Self-assessment of aging with a score from 0-10); Geriatric Depression Scale (GDS); and Social Support Scale (MOS-SSS). The data on childhood adversity was collected through the Adverse Childhood Experiences International Questionnaire (ACE-IQ) adapted for the brazilian population, which assesses 13 domains of childhood adversity: physical, sexual, and emotional abuse, physical and emotional neglect, exposure to domestic violence, parental separation or death, parental incarceration, alcohool or substance abuser in household, a parent being mentally ill or suicidal, bullying, community violence and peer violence. In our sample, 92,8% of participants were exposed to at least one ACE, the most prevalent being emotional negligence (62,9%) and exposure to domestic violence (60,4%). Among the associations of ACE-IQ with successful aging indicators, the strongest correlation found was between ACEs and depressive symptoms (r = 0.345; p $\leq$ 0.01), a significant statistical correlation was also observed with Self-perception of Aging (r = -0.203; p $\leq$ 0.01) and Social Support (r = -0.274; p $\leq$ 0.01). And a weak correlation was observed with the total number of chronic diseases and the score on the Instrumental Activities of Daily Living

(IADL) scale, 0.1 and -0.096, respectively. These findings suggest that ACEs have a greater influence on subjective indicators in old age. We bring unprecedented descriptive data about ACEs in brazilian elderly.

Introduction

The concept of successful aging has been studied extensively in the field of gerontology, with researchers and practitioners alike striving to identify the factors that contribute to healthy aging. The current consensus understanding of successful aging focuses on the combination of three main dimensions: physical health, cognitive function, and subjective well-being, with the ultimate goal of maintaining independence and quality of life in older age (Martin et al., 2014; Anton et al., 2015; Zanjari et al., 2017; Aronson, 2020). In parallel, there is evidence showing the relevance of other factors for successful aging, such as spirituality (Reich et al., 2020), personality (Prigerson et al., 1996) and social engagement (Wilson, et al., 2006). Nonetheless, one of the questions to be considered when studying successful aging is: in which period of life-span it starts to be determined? There is growing collection of evidence suggesting that successful aging is influenced by factors that are rooted in childhood experiences, particularly those that are negative or traumatic (Brandt et al. 2012; Oral et al. 2015).

Adverse childhood experiences (ACEs) are defined as events or circumstances that occur before the age of 18 and have the potential to cause harm in later life health or disrupt development (Felitti et al., 1998). These experiences can include physical, sexual, or emotional abuse, neglect, household dysfunction, and exposure to violence or substance abuse. ACEs have been linked to a range of negative outcomes across the lifespan, including poor physical and mental health, social and economic disadvantage, and decreased life expectancy (Pace et al. 2022).

Recent research has also explored the relationship between ACEs and successful aging. Several studies have found that individuals with a history of ACEs are more likely to experience poor health outcomes and have a shorter lifespan than those without ACEs (Felitti et al., 1998; Schaffer & Ferraro, 2011). In addition, ACEs have been shown to have a negative

influence on cognitive function, including memory, attention, and executive function (O'Shea, et al., 2021; Xiang, et al., 2022). Furthermore, ACEs are associated with poorer mental health in old age, as it is related to proner probability of depression and anxiety incidence (Kim, et al; 2021; Sheffler, et al. 2022;). These findings suggest that ACEs may be a critical factor in understanding the complex interplay between childhood adversity and successful aging.

There is a growing list of potential mechanisms and factors that may be initiated, activated or grounded by ACEs that influence successful aging. For example, one is through the impact of ACEs on biological processes. Adverse childhood experiences have been shown to activate the body's stress response system, leading to increased levels of cortisol and other stress hormones (Kiecolt-Glaser et al., 2011). Chronic activation of this response system has been linked to a range of negative health outcomes, including cardiovascular disease (Zaborenko, et al., 2020; Zhang et al., 2022), metabolic dysfunction (McCrory et al., 2015), and cognitive decline (Korten et al., 2014). In addition, ACEs have been shown to affect the structure and function of the brain, particularly in regions that are involved in emotional regulation and stress response (Damakos & Steptoe, 2022; Koyama et al., 2022). These changes may contribute to the development of mental health disorders, such as anxiety and depression, which are known to be risk factors for poor physical health outcomes in later life (Rhee et al., 2019; Henchoz et al., 2019; Inoue et al., 2022). Nonetheless, in spite of the mechanisms in which ACEs influence later life, the consequences occur on a multidimensional level. Considering that plural outcomes are associated with ACEs, as may be noted in literature: social (Easton & Kong, 2020), subjective (Danielson & Sanders, 2018; Nishio et al., 2021), biomedical (Yang et al., 2020), functional (Hu & Wei, 2022), cognitive (Gold et al., 2021) and longevity (Felitti et al., 1998).

Despite all the scientific evidence surrounding the associations between ACEs and successful aging, in opposite spectrum to pathological aging (Aronson, 2020), there are still many gaps to be filled that concern each field of knowledge separately (ACEs and successful aging) and the links between them. For example, the concept "successful aging" is still under dispute in relation to what variables should be considered to define if one person is aging successfully or not (Estebsari et al., 2020). Although there is founding consensus of what it is and how to measure it, as there are converging denouements to the broad research in the field, which is the significance of the elderly having physical and behavioral conditions to adapt, and be able to get involved in activities of daily living (Martin et al, 2014). Thereby, it seems to be indispensable to that, the basic conditions of physical health and functionality and the resources incorporating one's subjective well-being.

Thus, encompassing the large growing evidence that the concept of ACEs contain significant variables that impact people throughout life, including old age, this study was designed to better understand the influence of ACEs on later life outcomes, in a sample of Brazilian elderly. Considering the relevance of understanding the complex interplay between ACEs and successful aging is a critical area of research, with important implications for the development of interventions and policies aimed at promoting healthy aging for all individuals.

The general objective of this study was to describe ACEs and to verify the association of these events with indicators of successful aging in a sample of Brazilian elderly. Our hypothesis to the main objective is that there will be intelligible associations between ACEs and successful aging, whilst the size of the effect will be largely determined by the sample characteristics. Additionally, the prevalence of ACEs will be to a certain degree specific to this population, with some difference to the observed in general in the literature. Based on the assertion that most data available were collected in developed countries, which is distinct to our data.

Method

Study Design

This study deployed a cross-sectional delineation to investigate the association between ACEs and successful aging in a sample of Brazilian elderly.

Sample

The study sample consists of 356 elderly people (88,5% female) from different regions of Brazil. Inclusion criteria were to be aged 60 years or older (mean = 66,17) at the date of data collection and willing to participate in the study. Subjects that reported dementia suspicion and participants that responded more than 3 times that they "Prefer not to respond" in the ACE-IQ were excluded. In total, 379 responses were obtained, 23 inadequate subjects were excluded from analysis (19 because of dementia suspicion and 4 due to three responses "Prefer not to respond") ensuing N = 356.

Data Collection

Data was collected through online forms (Google Forms), in which the participants were able to self-respond individually. We adopted the snowball sampling methodology to recruit participants to the research. The consent form, approved by the ethics committee, along with the questionnaire was posted and shared in social media (Facebook, Instagram and WhatsApp groups), during the period of August 22th and October 22th.

Assessment Protocol

The study used the following protocol to assess indicators of successful aging. The first instrument is the Lawton Instrumental Activities of Daily Living (IADL) Scale, adapted to the Brazilian population, which is a widely used tool for assessing the ability of the elderly to perform 10 distinct activities of daily living with, without help, or not able to do at all (Lawton & Brody, 1969; Santos & Virtuoso Júnior, 2008). The second and third stages of the protocol were implemented thinking of the complexity of the construct 'successful aging', while considering a synthetic but reliable method to measure it. Thus, we considered the results of three recent broad reviews on the subject (Martin et al., 2014; Anton et al. 2015; Aronson, 2020; Estebsari et al., 2020), to conclude that the most adequate manner of measuring successful aging would follow the Two-factor Model proposed by Pruchno et al. (2010). Which consists of two categories to assess indicators of successful aging, the biomedical and the subjective. In the way we operationalized, the first part was composed of a questionnaire to identify the number of chronic diseases of the subjects (arthritis, hypertension, heart disease, cancer, diabetes, osteoporosis, heart attack and/or lung disease), thus comprising the biomedical indicators of successful aging, the subjects would have to answer have or have not heard from a physician or health care professional that have the disease or not. And encompassing the subjective indicators of successful aging, we used a Self-perception of Successful Aging measure (Pruchno et al., 2010), in which the subjects would rate how well they perceive that they are aging, in a scale ranging from 1 to 10 they self-evaluated their aging. Furthermore, to assess the aging experience, we deployed the Geriatric Depression Scale (GDS) a validated self-report instrument to assess the number of depressive symptoms at old age ranging from 0 to 15. And finally we utilized the Social Support Scale (MOS-SSS), a validated scale of perceived social support that consists of 19 likert items comprising 3 categories of social support: material support, emotional support and positive social interaction.

The instrument used to assess ACEs is the Adverse Childhood Experiences International Questionnaire (ACE-IQ), adapted to the Brazilian population. The selection of this instrument was justified by the fact that it was developed by an international community of scientists patronized by the the WHO and the Center for Disease Control and Prevention (CDC), with the purpose of producing a standard instrument that would work worldwide, that would enable transnational comparison (Pereira & Viana, 2021; Pace et al., 2022). The ACE-IQ is constituted by 38 items which inquiry about experiences respondents had before 18 years of age. There are 13 sections that explores different ambits of childhood experiences, those being: physical, sexual, and emotional abuse, physical and emotional neglect, exposure to domestic violence, parental separation or death, parental incarceration, exposure to substance abuse, a parent being mentally ill or suicidal, bullying, community violence and peer violence. Scores ranged from 0-13, considering that one point equals childhood exposure to one of the 13 categories.

Data Analysis

There were two fundamental stages of analyses in our research. The first one consisted of descriptive analysis of our sample's characteristics. The second one was elaborated to verify correlations between the ACEs total score and the successful aging indicators. The correlations were deployed with the Spearman coefficient, considering that variables did not fit normal distribution. To analyze the effect of the coefficient we considered a result between 0.3 and 0.5 to be moderate, and a result between 0.1 and 0.3 to be low (Cohen, 1992). All analyses were developed using IBM SPSS Statistics 21 for Windows.

Results

The study population comprised 356 Brazilian older adults aged 60 years or older (mean age: 66.06; SD: 5.034). Table 1 contains the descriptive analysis showing the sociodemographic characteristics of the sample. It was observed that 78.7% of the subjects were between 60 and 69 years old; 21.3% are 70 years old or older; 88.5% were women; more than half of the sample was married (51.4%) and more than three quarters were graduates or postgraduates (76.1%).

Table 1

Sociodemographic characteristics of the sample N = 356

	n	%
Age (mean)	66.06 ± 5.03	-
60-69 years old	280	77.8%
70 years old or more	76	22.2%
Gender		
Male	40	11.2%
Female	316	88.8%
Relationship Status		
Married	183	51.4%
Divorced/separated	96	26.9%
Widow(er)	39	11%
Single	38	10.7%
Educational level		
Graduated or more	271	76.1%
Undergraduate	31	8.7%
High School	34	9.6%
Middle School	8	2.2%
Elementary School	11	3.1%
Did not go to School	1	0.3%

Regarding the indicators of successful aging variables (Table 2), 299 participants (84%) reported having at least one chronic disease. Hypertension was the most prevalent disease, reported by 50.6% (N=180) of the participants. In terms of functional dependency, 61.5% showed results indicative of independence in Instrumental Activities of Daily Living. Regarding social support, the mean score was 53.47 ± 17.95, but most participants score was

high, with the mode being equal to the maximum possible score (mode = 76). According to the GDS, 22.8% exhibited symptoms suggestive of depression. In terms of self-perception of aging, 26.4% scored the maximum, with a mean of 8.2 ± 1.7.

Table 2

Indicators of Successful Aging

	n	%
Diseases (mean ± SD; median)	299* (6.27 ± 1.38; 7)	84%*
Arthritis	111	31.2%
Hypertension	180	50.6%
Heart Disease	62	17.4%
Cancer	49	13.8%
Diabetes	66	18.5%
Osteoporosis	92	25.8%
Heart Attack	17	4.8%
Pulmonary Disease	39	11.0%
IADL	-	-
Independent	219	61.5%
Some dependence	137	38.5%
MOS-SSS	53.47 ± 17.95	-
GDS	-	-
Not suggestive of depression	275	77.2%
Suggestive of depression	81	22.8%
Aging Self-perception (mean)	8.2 ± 1.7	-

* Number and percentage of participants that reported at least one chronic disease. SD = standard deviation.

Only 7.6% of participants reported that were not exposed to any ACE. Table 3 shows the descriptive analysis concerning ACEs. Of the 13 categories, five were experienced by half of the sample or more: Emotional Negligence (62.9%), Domestic Violence (60.4%), Emotional Abuse (57.9%), Physical Abuse (51.7%) and Community Violence (50%).

Table 3

Results of ACEs

	Observations (n)	%
Total ACEs*	329	92.4%
Emotional Negligence	224	62.9%
Domestic Violence	215	60.4%
Emotional Abuse	206	57.9%
Physical Abuse	184	51.7%
Community Violence	178	50%
Sexual Abuse	119	33.4%
Substance Abuse in household	107	30.1%
Parent/Caregiver Separation or Death	95	26.7%
Household member chronically depressed and/or mentally ill	77	21.6%
Physical Negligence	70	19.7%
Bullying	53	14.9%
Collective Violence	46	12.9%
Incarcerated household member	21	5.9%

ACEs: adverse childhood experience.

* The proportion of the population who had at least one ACE exposure.

Among the correlations of the total ACEs score with the five indicators of successful aging (Table 4), the highest association was found with the total GDS score ($r = 0.345$; $p \leq$

0,01), which showed a moderate result. The objective indicators of successful aging (Chronic diseases and IADL) exhibited the weakest correlations among the independent variables (r = 0.1 and r = -0.096, respectively).

Table 4

Correlations between indicators of Successful Aging and ACEs

Successful Aging Indicator	Spearman Coefficient (r)	p
Chronic Diseases	0.1	0.6
IADL	-0.096	0.7
Aging self-perception	-0.203	≤ 0.01**
GDS	0.345*	≤ 0.01**
SSS	-0.274	≤ 0.01**

Chronic Diseases total score; IADL: Instrumental Activities of Daily Living; SSS: Social Support Scale.

Negative correlation coefficients explained: IADL - higher scores, indicate higher independence; Aging self-perception: higher scores, indicate better self-evaluations; SSS: higher scores, indicate higher perceived support.

* Result indicating moderate correlation: higher ACEs scores being associated with more depressive symptoms.

** Significant correlation

When examining the correlation between the ACEs score by categories and the GDS score (Table 5), we observed a moderate correlation between the GDS and only the Emotional Negligence category of ACEs (r = 0.37).

Table 5

Correlations between categories of ACEs and GDS scores

ACE category	Spearman Coefficient (r)	p
Emotional Negligence	0.37	≤ 0.01
Physical Negligence	0.122	0.22
Substance Abuse in household	0.104	0.5
Household member chronically	0.186	≤ 0.01

depressed and/or mentally ill

Incarcerated household member	0.062	0.244
Parent/Caregiver Separation or Death	0.128	0.16
Domestic Violence	0.199	$\leq$ 0.01
Emotional Abuse	0.247	$\leq$ 0.01
Physical Abuse	0.109	0.4
Sexual Abuse	0.123	0.2
Bullying	0.184	$\leq$ 0.01
Community Violence	0.071	0.179
Collective Violence	0.196	$\leq$ 0.01

The only moderate correlation found is between GDS scores and Emotional Negligence.

Discussion

Our results revealed a high prevalence of ACEs in the investigated Brazilian elderly population. Compared to the results of other studies that also used ACE-IQ with elderly populations, our findings showed discrepancies. While in the present study, 92.4% reported being exposed to at least one ACE, in the study by Larkin et al. (2017), 63% of the sample was exposed to at least one ACE; in the study conducted by Dorji et al. (2020), at least 84.3% of the sample had experienced one ACE; and in the study by Yuan et al. (2022), it was 58.14%. Pace et al. (2022) conducted a systematic literature review aiming to investigate the use of ACE-IQ with adults of all ages. Out of the 46 reviewed articles, in 20 articles, more than three-quarters of the participants reported being exposed to at least one ACE, and in 34 articles, more than half of the participants reported at least one ACE. The average prevalence of at least one ACE was 74.62% in this review. Our study results are higher than all these mentioned studies, including the average from Pace et al.'s (2022) review.

Consistent with the findings of the present study, regarding the prevalence of different types of ACEs, in the study by Larkin et al. (2017), the most common type of ACE experienced by the sample was also Emotional Neglect, reported by 42% of the participants.

In the study conducted by Lin et al. (2021) and in the study by Küffer et al. (2016), the most frequent ACE was also Emotional Neglect with prevalence of 20.4% and 34.5%, respectively. In Yuan et al. (2022), the most common type was domestic violence (21.85%), followed closely by Emotional Abuse (21.21%). In the study conducted by Dorji et al. (2020), the most common types were Community Violence (54.9%) and Physical Neglect (38.6%). In Pace et al.'s (2022) review, although it was not solely focused on elderly populations, the most common prevalence was found for Emotional Abuse (31.1%) and Emotional Neglect (29.3%). Based on these data, the literature suggests that Emotional Neglect is one of the most common types of ACEs experienced by elderly cohorts. It is important to note that in elderly cohorts, Physical Abuse is often perceived as normative, in the sense that it was part of educational methods for correction and discipline. Physical punishment by parents as a method of education was prohibited by law in Brazil only in 2014 (Trindade & Hohendorff, 2020). In addition, Donoso and Ricas (2009) conducted a study to investigate the understanding of physical punishment as a form of education with a sample of brazilian parents. They concluded that this culture of punishment as education was in transition. This cultural perception that biases Physical Abuse as normal may have led to underreporting of this category of ACE.

Our study revealed a weak association between ACEs and indicators of physical health, such as functional independence and the incidence of chronic diseases, which were tested as proxies for successful aging. For subjective indicators of aging, such as self-perception of aging and absence of depressive symptoms, the results indicated a significant moderate influence of ACEs on depressive symptoms and a weak influence on self-perception of aging. Results from other studies also suggest an association between ACEs and depressive symptoms in old age (Park et al., 2015). However, it is important to highlight certain aspects of this research to explain possible divergences in findings from previous studies.

It should be noted that no previous studies were found that investigated the influence of ACEs, as measured by ACE-IQ, on successful aging in Brazilian populations. Therefore, the discrepancies in findings between the present study and other investigations can be explained mainly by sociodemographic and cultural differences among the studied populations.

In the present study, the sample was characterized by distinct conditions regarding successful aging. Firstly, we can mention the educational level of the present study's sample. The vast majority of participants (76.1%) had completed higher education or postgraduate

studies. It is known that education is a variable that can influence health outcomes in old age, with higher educational levels associated with healthier indicators (Avendano et al., 2009). Additionally, it is important to note that the majority of participants (77.8%) were under 70 years old, and it is observed in the literature that as age increases, the chances of maintaining successful aging indicators decrease (Strawbridge et al., 2002; Aronson, 2020).

Another point to be noted is that the score regarding social support can be interpreted as high due to the mean score (53.47 ± 17.95) and mode score equal to the maximum possible (76) in the MOS-SSS, and according to the literature, this is a favorable factor for successful aging (McReynolds & Rossen, 2004; Chappell & Funk, 2011).

There is another important point to be observed regarding the results of our research, which relates to the paradox of well-being in old age. It postulates that when older adults have a mildly disabling illness, the diagnosis can lead to changes in lifestyle habits, thereby promoting health and well-being (Hansen & Blekesaune, 2022). Based on the results of our sample, 26.4% of older adults reported the maximum score in self-perceived aging (with the majority scoring in the top three categories on a scale from 0 to 10: 74.1%), despite 50.6% reporting hypertension and 31.2% reporting arthritis. On the other hand, only 13.8% reported cancer, 17.4% reported heart disease, and 4.8% reported a heart attack. This indicates that the most prevalent diseases among the participants are relatively non-disabling, reinforcing the hypothesis of the well-being paradox in aging.

The limitations of the present study should be considered, especially in attempting to understand the discrepancies with the evidence indicated by the literature on the subject. The first limitation to be considered is the method of participant recruitment and data collection. The method used was Snowball Sampling, where the online survey form was shared on social networks, leading to selectivity of respondents (likely influenced by social media algorithms). But there are also strengths concerning the online research methodology. It minimizes the social desirability bias, as respondents answered the whole protocol with privacy and anonymously. Furthermore, since the data collection was exclusively online, it favored participants with greater internet familiarity, higher socioeconomic status, and education level to respond to the research protocol. Therefore, future studies with Brazilian older adults should seek strategies to enhance the representation of lower socioeconomic classes and education levels to assess the influences of these factors on ACEs and their association with successful aging indicators. Furthermore there are other limitations which are essential to note, that are concerning the data collection. The first is that the ACE-IQ is not validated exclusively to the older population. It is validated to adults older than 18 years old. The

second is the difficult to operationalize and measure the successful aging construct. As there is no consensus about its concept, we investigated the literature to select the most parsimonious indicators that would be a proxy to the disputing concept of successful aging.

The understanding of the influences of Adverse Childhood Experiences (ACEs) on long-term developmental outcomes needs to be expanded. This was the first empirical study that aimed to profile adverse experiences during childhood with a sample of Brazilian older adults, investigating the influences of these experiences on successful aging indicators. Therefore, the main strength of the present study lies in its pioneering nature of studying ACEs, as measured by ACE-IQ, in Brazilian older adults. It is expected that by initiating the exploration of this topic in the Brazilian context, it will stimulate the interest of aging researchers in developing studies with larger samples and longitudinal designs that can identify and modify the impacts of ACEs in old age.

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6 Conclusão

Os resultados em ambos os artigos permitem notar que as experiências adversas na infância se associam aos indicadores de envelhecimento bem-sucedido. Considerando a homogeneidade da amostra da pesquisa empírica, os resultados indicaram que sintomas depressivos se associam moderadamente com a exposição às experiências adversas na infância. E existe relação significativa entre as experiências adversas na infância e outras duas variáveis do envelhecimento: autopercepção do envelhecimento e suporte social percebido. Este estudo empírico se une a outros do corpo da literatura científica que têm surgido nos últimos anos, assim como foi observado na revisão de escopo realizada, das pesquisas que investigaram associações entre as experiências da infância e o envelhecimento bem-sucedido. Outro ponto conclusivo é que os dados da pesquisa empírica reforçam a teoria do paradoxo do bem-estar no envelhecimento. Este dado é importante pois indica que a adoção de comportamentos e hábitos saudáveis na velhice pode levar a uma experiência positiva na velhice, apesar da presença de algumas doenças crônicas. Indicando também que a dimensão subjetiva do envelhecimento tem ponderação forte no que diz respeito à experiência positiva do envelhecimento. Mais um ponto forte desta pesquisa é ter traçado uma descrição do perfil de EAIs com uma amostra inteiramente brasileira. Os dados mostraram relativa alta prevalência de experiências adversas na infância nesta amostra (92,4% participantes experienciaram pelo menos uma EAI). A presente pesquisa tem o perfil sociodemográfico dos participantes já idosos, mas não deles quando crianças ou adolescentes. Não é possível descartar que na infância a amostra possa ter sido mais heterogênea do ponto de vista socioeconômico. Devemos considerar também que o Brasil é caracterizado como um país em desenvolvimento, isso quer dizer que as condições socioeconômicas eram mais desfavoráveis há mais de 50 anos atrás. Por via de regra isso valeria também para os países desenvolvidos, considerando que os avanços tecno-científicos e médicos progrediram com o passar dos anos, portanto melhorando as condições de vida de forma geral no mundo. Esta asserção seria válida também para ser feita para os artigos incluídos na revisão sistemática. Provavelmente o conceito e construto de EAI terá que ser atualizado e adaptado conforme o tempo passe, para se adequar às realidades das infâncias de cada coorte, para uma medição mais acurada. Além disso seria de grande utilidade que o instrumento ACE-IQ fosse adaptado para diferentes idades, para que se possa obter relatos mais fidedignos e adequados sobre as experiências na infância das pessoas com base nos períodos históricos e culturais em que viveram antes dos 18 anos. Por exemplo, a maior parte dos participantes do estudo empírico que tem entre 60 a

69 anos (77,8%) viveram grande parte da infância e adolescência durante o regime ditatorial militar brasileiro que durou de 1964 a 1985 (Lima, 2003), que é uma característica específica desta coorte. Mas é necessário apontar que o ACE-IQ busca avaliar os impactos sociais e coletivos vividos até os 18 anos de idade nas categorias do instrumento intituladas Violência Coletiva e Violência Comunitária. Portanto, de alguma forma o instrumento acessa possibilidades de influências sociais e coletivas de forma transcultural na infância e adolescência, sendo válido em grande extensão em diferentes culturas do mundo, assim como apontado no artigo de revisão, e por Pereira e Viana (2021) na adaptação do ACE-IQ para a população brasileira. E este ponto inclusive justifica a utilização do ACE-IQ por pesquisadores, é o único com validação transcultural para avaliar as experiências adversas na infância de adultos.

Sobre as limitações, a principal limitação da pesquisa empírica foi a homogeneidade da amostra. A grande maioria dos participantes se caracteriza pela alta escolaridade. O que pode ter minimizado possíveis correlações. No artigo de revisão, também foi observada homogeneidade nas localidades onde as pesquisas foram conduzidas. A maioria dos estudos foram realizados na Europa, Estados Unidos e China. Nossa pesquisa não foi representativa da população socioeconomicamente desfavorecida, levando em consideração o nível educacional da amostra, assim como a maioria dos estudos da revisão também não contemplou populações menos favorecidas. Existe escassez de artigos com amostras da África e América do Sul. É necessário que mais pesquisas com populações socioeconomicamente desfavorecidas sejam realizadas, para ampliar conhecimento pela heterogeneização das evidências já coletadas sobre o tema. Não foi analisado no artigo de revisão, mas provavelmente em diversos artigos incluídos que avaliaram doenças crônicas poderíamos observar evidências do paradoxo do bem-estar do envelhecimento, assim como foi observado no artigo empírico.

A revisão de escopo não contém nenhum artigo que investigou a associação entre EAIs e indicadores de envelhecimento bem-sucedido no Brasil. A pesquisa empírica então apresenta diferencial evidente: de ser o primeiro, até onde nosso conhecimento alcança, a traçar um perfil de experiências adversas na infância de pessoas idosas Brasileiras. Existe um estudo conduzido por Cupertino et al. (2006), que pesquisou estresse e suporte social na infância e suas associações com sintomas depressivos em pessoas idosas brasileiras, mas que não adota o conceito de Experiências Adversas na Infância como variável independente.

Um ponto forte de ambos os artigos terem sido produzidos a partir da mesma dissertação é que a revisão de escopo possibilitou conhecimento sobre as metodologias que

outros pesquisadores utilizaram em suas pesquisas, tendo estes já apontado diversos vieses e limitações de pesquisas transversais com pessoas idosas, que acessaram as EAIs de forma retrospectiva com o EAI-QI. Este conhecimento foi de grande utilidade para o desenho da metodologia do artigo empírico. E proveram informações ricas que foram utilizadas na Discussão do artigo empírico sobre as limitações intrínsecas a este tipo de delineamento. Além disso, as conclusões dos artigos que foram incluídos na revisão possibilitaram que as discussões dos resultados do artigo empírico fossem enriquecidas, considerando a amplitude de evidências que tive acesso.

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