

TABLE OF CONTENTS

<i>Table 1. Experimental, Quasi-Experimental And Pre-Post Comparisons With Control Groups.</i>	2
<i>Table 2. Correlational studies investigating the association between different facets ond humor and well-being.</i>	21
<i>Table 3. Pre-post comparisons without a control group.</i>	54
<i>References.....</i>	59

TABLE 1. EXPERIMENTAL, QUASI-EXPERIMENTAL AND PRE-POST COMPARISONS WITH CONTROL GROUPS.

Study	Participant's characteristics				Experimental condition			Control condition			Main outcomes				
	<i>n</i>	<i>(n</i>	<i>M_{age}</i>	<i>SD_{ag}</i>	<i>Health</i>	<i>n</i>	<i>(% n</i>	<i>Activity</i>	<i>Durati</i>	<i>n</i>	<i>(% n</i>	<i>Activity</i>	<i>Durati</i>	<i>Depende</i>	<i>Main</i>
	<i>femal</i>			<i>e</i>	<i>status</i>	<i>female)</i>			<i>on and</i>	<i>female)</i>			<i>on and</i>	<i>nt</i>	<i>findings</i>
	<i>e)</i>								<i>freque</i>				<i>freque</i>	<i>variables</i>	
									<i>ncy</i>				<i>ncy</i>		
De Francisco et al., 2019	117 (37) Δ	47.1	10.2		Substance use disorder	99 (35)		Integrative Laughter Therapy	90 minutes weekly session s for 2	18 (2)		Treatment as usual*	NA*	- Happiness (Hervás &	Although self-esteem, anxiety and

months	Vázquez,	subjective
(9	2013);	happiness
session	-Anxiety	increased
s)	(Spielber	in both
	ger,	groups
	1983);	over time,
		the
	-	increase
	Satisfacti	was sig.
	on with	greater in
	life	the
	(Diener	experimen
	Emmons,	tal group.
	Larsen &	
	Griffin,	
	1985).	

Spencer et al., 2020	66 (66)	**	NS	Participant s had gynecolog ical cancer	***	Watched humorou s films	Averag e 96 minutes	***	Watched non- humorous content	Averag e of 62.5 minutes	- Emotiona l well- being (Watson & Clark, 1994)	Negative affect decreased in both conditions compared to baseline. There were no changes in positive affect compared
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											to	
											baseline.	
Zhao et al., 2020	74 (39)	Exp: 77.4 7, Cont : 79.2 4	Exp: 9.23 , Cont : 8.58	NS****	37 (21)	Watched humorou s films, engaged in simulated laughter, played games and shared humorou s stories.	1-hour weekly session s for 8 weeks	37 (18)	Regular activities	NA.	- Depressio n (Sheikh, & Yesavage , 1986); -Anxiety (Tang et al., 1984); - Subjectiv e well- being	After the eight weeks, participant s in the experimen tal group showed fewer signs of depression and anxiety

(Wang et al., 2005) compared to the control group. Positive affect increased whereas negative affect decreased compared to the control group after the

												intervention.
Lee, Kim & Park, 2020	36 (36)	*** **	NS	Participants had gynecological cancer	17 (17)	Laughter program and musicum activities	1-hour weekly sessions for 8 weeks	19 (19)	Regular activities	NA	-	Participants in the intervention group showed improvements in depression and emotional and functional

												well-being.
Tagalidou,	35	50.8	13.6	Participant	17 (NS)	Humor	90-	18 (NS)	Waiting	NA	-	No effects
Distlberger	(27)	6	8	s had		Training	minute		list		Depressio	were
, Loderer &				varied		Program	weekly				n	found in
Laireiter,				mental			session				(Hautzing	depression
2019				disorders.			for 7				er, Bailer,	, anxiety,
							weeks				Hofmeist	or well-
											er &	being over
											Keller,	time, when
											2012);	comparing
											-Anxiety	both
											(Laux,	groups.
											Glanzma	
											nn,	

											Schaffner	
											&	
											Spielberg	
											er, 1981);	
											-Well-	
											being	
											(Brähler,	
											Mühlán,	
											Albani,	
											Schmidt,	
											2007).	
Tagalidou,	54	Exp:	Exp:	Participant	28 (19)	Humor	90-	26 (19)	Regular	NA	-	The
Faschingba	(38)	54.1	14.0	s had		Training	minute		activities		Subjectiv	interventio
uer,		4;	7;	varied		Program	weekly				e well-	n did not
Mussuros,		Cont	Cont				session				being	influence

Ruch &	:	:	mental	for 8	scale	the well-
Laireiter,	52.0	12.2	disorders.	weeks	(Dalbert,	being,
2019	4	0			1992);	depression
					-Anxiety	, or anxiety
					and	scores of
					depressio	the
					n (Laux,	experimen
					Glanzma	tal group,
					nn,	when
					Schaffner	compared
					&	to the
					Spielberg	control
					er, 1981)	group.
					-	
					Depressiv	

												e	
												symptom	
												s (Tritt et	
												al. 2008)	
Kurtz	&	210	34.9	13.0	Healthy or	NS.	Recollect	<20	NS.	Recollection	<20	-	-
Algoe,		(119)	6	2	NS.		ion of a	minutes		n of	minutes	Emotions	Compared
2017a							shared			situations		(Fredrick	to the no
							laughter			in which		son et al.	laughter
							situation			laughter		2003);	and the no
										was not		-	shared
										shared or		Relations	laughter
										in which		hip	conditions,
										there was		satisfacti	shared
										no laughter		on (1 ad	laughter
												hoc item).	was

associated

with less

negative

emotions

and greater

relationshi

p

satisfactio

n.

Compared

to the

condition

in which

laughter

was not

shared,

													shared
													laughter
													was
													associated
													with more
													positive
													emotions.
Kurtz	&	160	20.7	3.41	Healthy or	NS.	Participa	3	NS.	Participant	3	-	The
Algoe,		(119)	7		NS.		nts saw	minutes		s saw	minutes	Emotions	manipulati
2017b							laughter-			pleasant		(Fredrick	on did not
							inducing			stimuli		son et al.	cause
							stimuli			with a		2003)	changes in
							with a			smiling			positive or
							laughing			confederat			negative
										e			emotions.

						confederate								
Wellenzoh n, Proyer & Ruch, 2016	632 (515)	47.4	11.6	Healthy or NS.	NS.	Different writing exercises related to humor	Unclear	NS.	Placebo (writing about early memories)	Unclear	- Happiness (Seligman, Steen, Park & Peterson, 2005); - Depression (Hautzinger et al., 2012)	All humor- based interventions, except the counting funny things exercise, demonstrated positive	five	

													effects on happiness and depression .
Ganz Jacobs, 2014	& (67)	92	76.9	6.8	Healthy or NS.	42 (NS)	Humor therapy worksho p	2-3 hours weekly session s for 6 months	50 (NS)	Regular activities	2-3 hours weekly session s for 6 months	-Health related quality of life (Hays, Sherbour ne & Mazel, 1993); -General well- being	Participati on in the workshop led to improved positive well- being, decreased anxiety,

											(Dupuy, 1987);	depression and
											-Brief Symptom inventory (Derogatis & Spencer, 1982)	increased general well-being.
Crawford & Caltabiano, 2011	55 (37)	38	11.8	Healthy or NS.	21 (NS)	Humor skills program me	8 weeks	20 (NS)	Regular activities	NS.	-Affect (Watson, Clark, & Tellegen, 1988); -Depression and anxiety (Lovibond	All groups showed increased positive affect after the intervention, but the

& humor
Lovibond
, 1995). group
showed
the
greatest
increase.
Participati
on in the
program
led to
lower
levels of
depression
and
anxiety.

Szabo, 2003	39 (17)	20- 23	NS.	Healthy or NS.	Within- subject comparis ons	Watched a humorou s vídeo	3 weeks	Within- subject comparis ons	Watched a neutral (document ary) video and jogged	3 weeks	-Anxiety (Spielber ger et al., 1970); -Positive well- being (McAule y & Courneya , 1994).	Watching humorous content led to a decrease in anxiety (greater than in the other two conditions) and to an increase in well-being like that observed following
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												the exercise session.
Houston, Mckee, Carroll & Marsh, 1998	61 (44)	83.7	6.79	Mixed	31 (NS)	Humor structure d activity	4 weeks	30 (NS)	Regular activities	4 weeks	-General health (Goldber g & Hillier, 1979); -Anxiety and depressio n (Zigmond & Snaith, 1994).	For the anxiety and depression , the interventio n group scored lower than the control group post-

interventio

n.

Notes:

Δ - Significantly different between control and experimental group.

NS – Not specified.

NA – Not applicable.

* Participants were retrospectively assigned to either the control or the experimental group based on their attendance of the laughter therapy sessions. Participants who attended $\geq 80\%$ constituted the experimental group; participants who attended less than 80% of the sessions were the control group.

** Participants were aged between 48 and 89 years old.

*** This was a cross-over study. Both groups of participants were exposed to the intervention.

**** Participants were elders living at a residential care facility.

***** Participants were aged between 20 and 60 years old.

TABLE 2. CORRELATIONAL STUDIES INVESTIGATING THE ASSOCIATION BETWEEN DIFFERENT FACETS OND HUMOR AND WELL-BEING.

Study	Participant's characteristics					Main variables		Results
		<i>n</i> (<i>n female</i>)	<i>M</i> _{age}	<i>SD</i> _{age}	<i>Health status</i>	<i>Domain of humor</i>	<i>Measured</i>	<i>Summary</i>
Comic styles	Dionigi, Duradoni & Vagnoli, 2021	254 (123)	38.97	12.46	Healthy or NS.	-Comic styles	-Anxiety (Meyer, Miller, Metzger & Borkovec, 1990); -Well-being (World Health Organization-Well-Being	When controlling for sex and age, low fun, low humor, and high cynicism were the best predictors of worry (30% variance explained). Fun and humor were the best predictors for well-being (14% variance explained).

								Index (WHO-5)).	
Humor Styles	Tsukawaki & Imura, 2021	513 (409)	20.78	3.15	Healthy or NS.	-Humor styles	-Self-esteem (Rosenberg, 1965); -Life satisfaction (Diener et al., 1985); -Affect (Watson et al., 1988); -Depression (Radloff, 1977).	Affiliative humor was positively correlated with cognitive well-being, affective well-being, self-esteem, and negatively correlated with depression. Self-enhancing humor was positively correlated with cognitive well-being, affective well-being, self-esteem, and negatively correlated with depression. Aggressive humor was positively correlated with cognitive well-being, and depression, but not correlated with affective well-being or self-esteem. Self-defeating humor was not correlated with cognitive	

								well-being, or affective well-being, but it was negatively correlated with self-esteem and positively correlated with depression.
Nezlek, Derks & Simanski, 2021	116 (57)	19.1	1.2	Healthy or NS.	-Humor styles	-Self-esteem (Rosenberg, 1965); -Depressogenic adjustment (Beck, 1967); -Affective well-being (Watson et al., 1988).	Affiliative and self-enhancing humor were positively correlated with self-esteem, positive affect and depressogenic adjustment. Self-defeating humor was negatively correlated with depressogenic adjustment.	
Amjad & Dasti, 2020	350 (175)	20.84	1.22	Healthy or NS.	Humor styles	-Life satisfaction	Affiliative and self-enhancing humor were positively correlated with life satisfaction, positive affect	

						(Diener et al., 1985); -Affect (Watson et al., 1988)	and negatively correlated with negative affect. Aggressive and self-defeating humor were negatively correlated with life satisfaction, positive affect and positively correlated with negative affect.
Navarro-Carrillo, Torres-Marín, Corbacho-Lobato & Carretero-Dios, 2020	104 (80)	51.88	9.82	Healthy or NS.	Humor styles	-Psychological well-being (Cánovas, 1994)	Affiliative humor was positively correlated with happiness, sociability, health, and life satisfaction. Self-enhancing humor showed a strong positive correlation with happiness, moderate positive correlations with sociability and life satisfaction and a small positive correlation with health.

									Self-defeating humor showed small positive correlations with happiness, health, and life satisfaction.
Rizeanu & Chraif, 2020	43 (NS)	37.79	10.48	Healthy or NS.	Humor styles	-Well-being (Ryff, 1989); -Satisfaction with life (Dienner et al., 1985); -Emotions (Pitariu, Levine, Muşat, & Ispas, 2006)	Affiliative humor was positively correlated with positive emotions, autonomy, and purpose in life; and negatively correlated with negative emotions. Self-enhancing humor was positively correlated with positive emotions, autonomy, and purpose in life; and negatively correlated with negative emotions. Aggressive humor was negatively correlated with personal growth,		

							purpose in life, autonomy, and control.
Marrero, Carballeira & Hernández-Cabrera, 2020	468 (215)	Healthy participants: M = 38.51, SD = 12.71. Participants with health issues: M = 14.41, SD = 14.41	Healthy participants: M = 38.51, SD = 12.71. Participants with health issues: M = 14.41, SD = 14.41	Mixed	Humor styles	-Self-esteem (Rosenberg 1965); -Social support (Sarason et al., 1987); -Life satisfaction (Diener et al. 1985); -Happiness (Lyubomirsky	Self-enhancing humor and self-defeating humor predicted subjective well-being through optimism and psychological well-being through self-esteem and social support for women and healthy individuals.

						and Lepper 1999); -Psychological well-being (Ryff & Keyes, 1995).
Bhattacharyya, Jena & Pradhan, 2019	354 (149)	44.83	5.97	Healthy or NS.	-Humor styles	-Well-being at Resilience was a significant work scale mediator of the relationship between (Demo & affiliative and self-enhancing and Paschoal, well-being at work. Both positive 2013); humor styles were positively -Self-esteem correlated with self-esteem. (Rosenberg, 1965).

Wang, Zou, Zhang & Hou, 2019	462 (225)	21.16	1.51	Healthy or NS.	-Humor styles	-Affect (Watson, Clark & Tellegen, 1988); -Satisfaction with life (Diener et al. 1985).	Self-enhancing humor was positively associated with positive affect and life satisfaction. Self-defeating humor was positively associated with negative affect
Caudil & Woodzicka, 2017	388 (144)	28.92	11.88	Healthy or NS.	Humor styles	-Workplace well-being (Parker & Crawford 2009); -Social support (Caplan et al., 1975).	Positive humor positively associated with workplace well-being and greater perceptions of social support.

Dijkstra, Barelds, Ronner & Nauta, 2011 ^d	202 (102)	41.2	9.8	Healthy but gifted	-Humor styles	-General health (Goldberg, 1972); -Life satisfaction (Diener et al., 1985).	For men, affiliative, aggressive, and self-enhancing humor were not correlated with general health or life satisfaction. Self-defeating humor was negatively correlated with general health and satisfaction with life. For women, affiliative and aggressive humor were not correlated with general health or life satisfaction. Self-enhancing humor was positively correlated with general health and satisfaction with life. Self-defeating humor was negatively correlated with general health and life satisfaction.
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Dijkstra, Barelds, Ronner & Nauta, 2011 ^e	265 (187)	49.1	12.0	Healthy or NS.	-Humor styles	-General health (Goldberg, 1972)); -Life satisfaction (Diener et al., 1985).	For men, affiliative, self-enhancing humor was positively correlated with general health and satisfaction with life. Aggressive humor was not correlated with general health or satisfactions with life. Self- defeating humor was negatively correlated with general health, but not correlated with satisfaction with life. For women, affiliative and aggressive humor were not correlated with general health or satisfaction with life. Self- enhancing humor was positively correlated with general health and satisfaction with life. Self-defeating humor was negatively correlated
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									with general health and satisfaction with life.
Kuiper, Kirsh, 132 Maiolino & (90) 2016	19.23	1.12	Healthy or NS.	-Humor styles	-Depression (Radloff, 1977); -Self-esteem (Rosenberg, 1985); -Social self-esteem (Lawson, Marshall & McGrath, 1979).	Affiliative and self-enhancing humor were negatively correlated with depression, but positively correlated with global self-esteem and social self-esteem. Self-defeating humor was positively correlated with depression, but negatively correlated with global self-esteem and social self-esteem. Aggressive humor was not correlated with depression, global self-esteem and social self-esteem.			

Fiyaz, Majeed & Khan, 2016	134 (67)	NS.	NS.	Healthy or NS.	-Humor styles	-Psychological well-being (Ryff, 1995); -Self-esteem (Rosenberg, 1985).	Affiliative humor was positively correlated with self-esteem and psychological well-being. Self-enhancing humor was not correlated with self-esteem but was positively correlated with psychological well-being. Aggressive humor was not correlated with self-esteem or psychological well-being. Self-defeating humor was not correlated with self-esteem but was positively correlated with psychological well-being. Affiliative humor was positively correlated with autonomy, personal growth, positive relations, purpose in life, self-acceptance, but not with
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environmental mastery. Self-enhancing humor was positively correlated with autonomy, environmental mastery, personal growth, positive relations, purpose in life and self-acceptance. Aggressive humor was not correlated with autonomy, environmental mastery, personal growth, positive relations, but was positively correlated with purpose in life and self-acceptance. Self-defeating humor was not correlated with autonomy, environmental mastery, personal growth, but was positively correlated with positive

								relations, purpose in life and self-acceptance.
Çalışandemir & Tagay, 2015	287 (248)	NS.	NS.	Healthy or NS.	-Humor styles	-	Life satisfaction (Diener et al., 1985)	Self-enhancing humor was positively correlated with life satisfaction. Aggressive and self-defeating humor were negatively correlated with life satisfaction.
Ford, McCreight & Richardson, 2014	109 (66)	37.09	13.99	Healthy or NS.	-Humor styles	-Subjective happiness	(Lyubomirsky & Lepper, 1999).	Self-enhancing humor was positively correlated with happiness. In addition, self-defeating and aggressive humor were negatively correlated with happiness.
Kuiper, Klein, Vertes &	91 (76)	18.62	1.13	Healthy or NS.	-Humor styles	-Anxiety	(Costello & Comrey, 1967).	Affiliative and self-enhancing humor were negatively correlated with anxiety. Aggressive and self-

Maiolino, 2014								defeating humor were not correlated with anxiety.
Yue, Jiang & Hiranandani, 2014	Liu, (135)	227	20.9	1.7	Healthy or NS.	-Humor styles	-Self-esteem (Rosenberg, 1985); - Happiness (Lyubomirsky & Lepper, 1997)	Affiliative and self-enhancing humor were positively correlated with self-esteem and happiness. Aggressive and self-defeating humor was not correlated with self-esteem or hapiness.
Páez, Martínez-Sánchez, 2012	Seguel, (254)	355	23.00	7.62	Healthy or NS.	-Humor styles	-Happiness (Lyubomirsky & Lepper, 1999);	Affiliative and self-enhancing humor were positively correlated with hapiness and psychological well-being. Aggressive humor was positively correlated with happiness, but not with psychological well-

							-Psychological well-being (Ryff, 1995).	being. Self-defeating humor was not correlated with happiness, but negatively correlated with psychological well-being.
Jovanovic, 2011	225 (125)	23.61	3.83	Healthy or NS.	-Humor styles	-Life satisfaction (Diener et al., 1985); -Affect (Watson, Tellegen & Clark, 1988).	Affiliative and self-enhancing humor were positively correlated to emotional well-being and life satisfaction. Aggressive and self-defeating humor were negatively related to emotional well-being and not significantly correlated with life satisfaction.	
Tumkaya, 2011	376 (211)	21.15	NS	Healthy or NS.	-Humor styles	-Life satisfaction (Diener et al.,	Affiliative and self-enhancing humor were positively correlated with well-being. Aggressive humor was negatively correlated with subjective	

								1985);	well-being. Self-defeating humor was not correlated with well-being.
								-Affect	
								(Watson,	
								Tellegen &	
								Clark, 1988).	
Edwards & Martin, 2010	214 (123)	18.58	1.99	Healthy or NS.	-Humor styles	-Depression and anxiety (Lovibond & Lovibond, 1995);	Affiliative humor style was negatively correlated with depression, anxiety, but not with self-esteem or satisfaction with life.		
						-Self-esteem (Rosenberg, 1965);	Self-enhancing humor was negatively correlated with depression and anxiety, and positively correlated with self-esteem and satisfaction with life.		
						-Life satisfaction	Aggressive and self-defeating humor were positively correlated		

								(Diener et al., 1985).	with depression and anxiety, but negatively correlated with self-esteem, and not correlated to life satisfaction.
Kuiper & McHale, 2009	137 (93)	19.6	2.5	Healthy or NS.	-Humor styles	-Depression (Radloff, 1977));	-Social self-esteem (Lawson, Marshall, & McGrath, 1979).	Higher levels of affiliative and self-enhancing humor predicted higher levels of social self-esteem and lower levels of depression. Higher levels of self-defeating humor predicted lower levels of social self-esteem and higher levels of depression.	

Cann, Stilwell & Taku, 2010	473 (385)	20.92	5.95	Healthy or NS.	-Humor styles	-Happiness (Hills & Argyle, 2002); -Psychological and physical health (Ware, Snow, Kosinski, & Gandek, 1993).	Affiliative and self-enhancing humor were positively correlated with happiness. Self-defeating humor was negatively correlated with happiness.
Greven, Chamorro-Premuzic, Arteche & Furnham, 2008	1038 (300)	24.15	6.29	Healthy or NS.	-Humor styles	-General health and well-being (Goldberg & Williams, 1988).	Well-being was positively correlated with affiliative and self-enhancing humor styles. Neither affiliative nor self-defeating humor styles were associated with general health. Self-enhancing humor was positively associated with general

								health and aggressive humor was negatively associated with general health.
Kuiper, Grimshaw, Leite & Kirsh, 2004	137 (93)	19.6	2.5	Healthy or NS.	-Humor styles	-Self-esteem (Rosenberg 1979); -Social self-esteem (Lawson et al. 1979); -Depression (Radloff 1977));		Affiliative humor was negatively correlated with depression, anxiety and negative affect, positively correlated with global self-esteem, social self-esteem, but not correlated with positive affect. Self-enhancing humor was negatively correlated with depression, anxiety, and negative affect, but positively correlated with global self-esteem, social self-esteem and positive affect. Self-defeating humor was positively correlated with depression, anxiety, and negative

								-Anxiety	affect, and it was negatively
								(Costello &	correlated with global self-esteem
								Comrey 1967);	and social self-esteem, and not
								-Affect	correlated with positive affect.
								(Watson, Clark	Aggressive humor was not
								& Tellegen,	correlated with depression, anxiety,
								1988).	negative affect, global self-esteem,
									social self-esteem or positive affect.
	Kazarian &	401	19.2	1.26	Healthy or	-Humor styles	- Psychological	Affiliative humor was correlated	
	Martin, 2004	(221)			NS.		well-being and	with well-being, but not with	
							perceived	physical health. Self-enhancing	
							health (Ontario	humor was positively correlated	
							Ministry of	with well-being and with physical	
							Health, 1992).	health. Aggressive and self-	
								defeating humor were not correlated	

								with well-being, nor with physical health.
Martin, Puhlik-Doris, Larsen, Gray & Weir, 2003	1195 (725)	25	15.68	Healthy or NS.	-Humor styles	-Depression (Radloff, 1977); -Anxiety (Rosenberg, 1979); -Well-being (Ryff & Keyes, 1995)	Affiliative humor was negatively correlated with anxiety and depression, but positively correlated with self-esteem and well-being. Self-enhancing humor was negatively correlated with anxiety, depression, but positively correlated with self-esteem and well-being. Aggressive humor was not correlated with anxiety, depression, self esteem or well-being. Self-defeating humor was positively correlated with anxiety, depression,	

									and negatively correlated with self-esteem and well being .
Humor as a coping mechanism or defense style	Zacher & Rudolph, 2021	979 (394)	44.50	10.90	Healthy or NS.	-Coping Strategies	-Affect (Watson, Clark & Tellegen, 1988)	Positive affect was negatively correlated with the use of humor as a coping strategy.	
	Umucu & Lee, 2020	269 (118)	39.37	12.18	Self-reported disabilities and chronic conditions	-Coping Strategies	-Well-being (Butler & Kern, 2016); -Depression and Anxiety (Kroenke, Spitzer, Williams, & Löwe, 2009).	Humor was positively associated with well-being after controlling for socio-demographic (age, sex, “...race...” (sic) and marital status) and psychological characteristics (depression, anxiety and COVID-19 related stress).	

Eden, Johnson, Reinecke & Grady, 2020	425 (291)	20.19	2.18	Healthy or NS.	-Coping Strategies (Brief COPE inventory, Carver, 1997)	-Affect (Diener et al., 2010)); -Mental health (Ware & Sherbourne, 1992); -Anxiety (Spitzer et al., 2006).	Coping humor was positively correlated with anxiety and mental health.
Machado, Tavares, Petribú, Pinto & Cantilino, 2016	104 (56)	39.3	11.5	Healthy or NS.	-Humor as a defense style	-Happiness (Lyubomirsky & Lepper, 1999).	There was a positive correlationg between the use of humor as a defense style and subjective happiness.

Humor orientation	Curran, Janovec & Olsen, 2021	406 (297)	20.34	4.53	Healthy or NS.	Humor Orientation (Booth-Butterfield & Booth-Butterfield, 1991)	-Mental well-being (Ware & Sherbourne, 1992).	There was a positive association between humor orientation and mental well-being, for individuals who scored lower on cognitive flexibility.
Humor as a character strength	Gander, Hoffman, Proyer & Ruch, 2020	1167 (595)	43.86	8.32	Healthy or NS.	Character strengths	-Life satisfaction (Diener et al., 1985); -Happiness (Seligman et al., 2005); -Depression (Hautzinger and Bailer, 1993);	Depressive symptoms decreased in people with increased levels of humor. Changes in humor were not correlated with general health but were positively correlated with happiness.

						-General health (Idler & Benyamini, 1997)	
Martínez- Marti & Ruch, 2014	945 (486)	43.60	8.62	Healthy or NS.	-Character strengths	- Life satisfaction (Diener et al., 1985); -Affect (Mroczek and Kolarz, 1998).	Humor was positively correlated with satisfaction with life and positive affect but negatively correlated with negative affect. For participants between the ages of 27- 36 (n = 241), humor was not correlated with satisfaction with life or negative affect, but it was positively correlated with positive affect. For participants between the ages of 37-46 (n = 301), humor was not correlated with life satisfaction, but was positively correlated with

										positive affect and negatively correlated with negative affect. For participants between the ages of 47-57 (n = 403), humor was not correlated with life satisfaction, but was positively correlated with positive affect and negatively correlated with negative affect.
Sense of humor	Holcomb & Ivey, 2017	109 (31)	36	NS.	Drug abuse	-Sense of humor	-Psychological well-being	(Holcomb et al., 1998).	-Sense of humor was associated with higher psychological well-being.	
	Berrios-Martos, Pulido-Martos,	113 (90)	19.6	3.9	Healthy or NS.	Sense of humor	-Psychological well-being	(Cánovas, 2007)	Sense of humor is positively correlated with psychological well-being.	

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Smedema,	242	44.6	13.2	Spinal cord	-Sense of humor	-Life	Sense of humor was positively
Catalano & (82)				injury		satisfaction	correlated with life satisfaction and
Ebener, 2010						(Diener et al., & self-esteem.	
						Griffen, 1985);	
						-Well-being	
						(Rubin, Chan,	
						Bishop, &	
						Miller, 2003);	
						-Self-esteem	
						(Rosenberg,	
						1965)	

Herzog & Strevey, 2008	823 (544)	20-30	NS.	Healthy or NS.	-Sense of humor	-Depression (Radloff, 1977). -Happiness (Kozma & Stones, 1980); -Well-being (Ryff, 1989).	Humor appreciation predicted emotional well-being, personal development and affective functioning.
Helvik, Jacobsen, Hallberg, 2006	343 (155)	69	13.8	Hearing impairment	-Sense of humor	-Psychological well-being (Dupuy, 1984).	Sense of humour was positively correlated with psychological well-being.
Kuiper & Borowicz-Sibenik, 2005	126 (82)	19.67	2.41	Healthy or NS.	-Sense of humor	-Self-esteem (Rosenberg 1965);	- Sense of humor was negatively correlated with depression; and positively correlated with self-esteem.

							-Depression (Costello & Comrey, 1967)	
Mixed	Kuiper, Martin, Olinger, Kazarian & Jetté, 1998	74 (37)	Mean ages between 32 and 45	NS.	Mental disorders (both clinical and sub- clinical)	-Sense of humor and coping humor	-Self-esteem (Rosenberg, 1965); -Depression (Radloff, 1977); -Affect (Watson, Clark & Tellegger, 1988)	Sense of humor and coping humor were positively associated with lower levels of depression on the clinical sample; in the subclinical sample, only higher levels of liking humor (one of the subscales of the sense of humor questionnaire) was associated with lower levels of depression. Lower levels of negative affect were associated with coping humor in the depressed group. In schizophrenics, no relation was

							observed between sense of humor and positive affect.
Porterfield, 1987	220 (125)	19-22	NS.	Mental disorders (both clinical and sub-clinical)	-Sense of humor and coping humor	-Depression (Radloff, 1977); -Physical illness (Cohen & Hoberman, 1983).	Depression was negatively correlated with the Situational Humor Response Questionnaire and with the Coping Humor Scale.

TABLE 3. PRE-POST COMPARISONS WITHOUT A CONTROL GROUP.

Study	Participant's characteristics				Intervention		Main outcomes		
	<i>n</i> <i>female</i>	<i>(n</i> <i>female)</i>	<i>M</i> _{age}	<i>SD</i> _{age}	<i>Health</i> <i>status</i>	<i>Activity</i>	<i>Duration</i> <i>and</i> <i>frequency</i>	<i>Dependent variables</i> <i>Main findings</i>	
Casellas-Grau, Ochoa, Lleras de Frutos, Flix-Valle,	99 (52)		58.14	14.8	Cancer patients	Clown intervention	15 minutes	-Anxiety and well-being (Bruera et al., 1991; Carvajal et al., 2011).	Anxiety scores improved after the intervention, but no effects were observed in well-being.

Rosales & Gil, 2021a								
Casellas- Grau, Ochoa, Lleras de Frutos, Flix- Valle, Rosales & Gil, 2021b	113 (71)	52.68	16.1 9	Healthy or NS.	Clown intervention	15 minutes	-Anxiety and well-being System (Bruera et al., 1991; Carvajal et al., 2011).	Anxiety and well-being scores improved after the intervention.

Casellas- Grau, Ochoa, Lleras de Frutos, Flix- Valle, Rosales & Gil, 2021c	31 (27)	NS.	NS.	Healthy or NS.	Clown intervention	NS.	-Anxiety and well-being (Bruera et al., 1991; Carvajal et al., 2011).	The presence of clowns was associated with improved anxiety and well-being.
Tagalido u, Loderer, Distlberg er &	35 (26)	51.9	9.67	Subclinal sample	Humor training	90 minutes weekly sessions for 7 weeks	-Depression (Hautzinger et al. (2012)); -Anxiety (Laux et al., 1981);	Depressiveness, anxiety, and well-being improved significantly over time with medium to large effect sizes.

Laireiter, 2018							-Well-being (WHO-5 Well-Being Index).	
Kurtz & Algoe, 2017a	202 (129)	32.01	10.9 6	Healthy or NS.	-Recollection of a situation of shared laughter	3 minutes	Emotions (Fredrickson et al. 2003); -Relationship satisfaction (1 ad hoc item).	When controlling for relationship length, shared laughter was associated with higher positive emotions and relationship satisfaction and with fewer negative emotions.
Weinberg, Hammond & Cummins , 2014	44 (23)	58.86	14.1 2	Healthy or NS.	Laughter yoga	30 minutes	-Life satisfaction (1 ad hoc item); -Subjective well-being; -Depression and anxiety (Lovibond & Lovibond, 1995).	Participation in the activity was associated with an improvement in general life satisfaction and subjective well-being.

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