



Is Celebrity Worship Increasing Over Time?

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Abstract

Information about celebrities has steadily increased over time and is currently available every day in multiple venues. Our study examines whether extreme interest in celebrities has increased over the past 20 years. The Celebrity Attitude Scale appeared in its 23-item iteration in 2001 and has been used extensively since then, making it possible to observe trends in the strength of celebrity admiration over the past two decades. Using archival methods, we gathered data from 35 studies (2001-2021) that included US participants who completed the Celebrity Attitude Scale. We established objective criteria for determining the proportion of participants from each study who qualified as “celebrity worshippers.” Our results indicate that celebrity worship increased dramatically from 2001 to the present. The implications of increases in celebrity worship are important, given research showing that high levels of celebrity worship are often associated with undesirable attitudes and behaviors, such as anxiety, depression, obsessive thoughts, suicide attempts, excessive gambling, disordered eating patterns, and difficulty maintaining intimate relationships.

Key words: celebrity admiration, Celebrity Attitude Scale, archival study, United States, trends

Introduction

Celebrity worship is often directed toward media figures celebrated through television, magazines, social media, and other sources. While celebrity admiration exists on a continuum, some people, “celebrity worshippers,” are intensely attracted to celebrities. Celebrity worship has been extensively researched (see Brooks, 2018 for recent review). McCutcheon et al. (2002) proposed the Absorption-Addiction Model which suggests that most celebrity admiration is harmless and related to entertainment purposes. However, people who lack meaningful relationships or a strong sense of personal identity may become overly absorbed in their attachment to celebrities, becoming celebrity worshippers. Their behaviors may acquire addictive qualities, leading to obsession with the lives of celebrity figures (McCutcheon et al., 2002). The purpose of the present study is to examine trends in the intense absorption with celebrities.

Many studies support the Absorption-Addiction Model (McCutcheon et al., 2002) showing that more intense levels of celebrity admiration are associated with a range of maladaptive psychological states including anxiety and depression (Maltby et al., 2001), neuroticism (Maltby et al., 2011), narcissism (Ashe et al., 2005; Greenwood et al., 2018), obsessive thoughts (McCutcheon, Aruguete et al., 2016), loneliness (Ashe & McCutcheon, 2001), a lack of humility (Huynh & McCutcheon, 2021) and dissociation (Maltby et al., 2006). Higher levels of celebrity admiration have also been associated with maladaptive behaviors, including problematic interpersonal behaviors (McCutcheon, Gillen, et al., 2016), excessive gambling (Lian et al., 2019), disordered eating (Aruguete et al., 2014), a tendency to exonerate a fictitious movie star

charged with a serious crime (Wong et al., 2010), intentional self-injury and suicide attempts (Zsila et al., 2020), and elective cosmetic surgery (Maltby & Day, 2011). Collectively, research on celebrity worship shows that it tends to be related to poor mental health (Maltby et al., 2003; Zsila et al., 2020). The research findings support the explanation that celebrity worship serves as a compensation for something that the worshiper lacks, such as a stable identity, an empty or confused sense of self, or meaningful interpersonal relationships (Brooks, 2018; McCutcheon et al., 2002; Reeves et al., 2012).

Stever (2011) argued that, since 2001, there have been important changes in relationships between celebrities and their admirers. Specifically, she and her colleague have argued that various forms of social media are powerful marketing tools that have made it possible for celebrities to communicate more readily with their followers (Stever & Lawson, 2013). The increased communication between celebrities and their followers made possible by technology-mediated social networking has the potential to strengthen the attachment to celebrities. Indeed, access to celebrity information has become easily available.

While ability to access celebrity information has increased, US mental health trends have been concerning. For example, depression in US teens increased 59% from 2007 to 2017 (Geiger & Davis, 2020). Anxiety also increased dramatically from 2008 to 2018 (Goodwin et al., 2020). In 2018, about a third of teens reported feeling considerable pressure to look attractive and fit in socially (Geiger & Davis, 2020). Social isolation and loneliness show similar increases in prevalence over time (Holt-Lunstad, 2017). According to the Absorption-Addiction Model (McCutcheon et al., 2002), people experiencing poor mental health with few quality social relationships may be more vulnerable to celebrity worship. Increased access to celebrities, combined with disturbing trends in psychosocial health, give justification for the suspicion that celebrity worship may be rising.

The Celebrity Attitude Scale (CAS; McCutcheon et al., 2002) is the most common measure of celebrity admiration (Brooks, 2018). The CAS appeared in its 23-item iteration in 2001 and has been used extensively since then, making it possible to observe trends in the strength of celebrity admiration over the past two decades. The present study examines trends in celebrity worship among US samples over a 20-year period. The archival design examines the percentage of participants who exceed cutoff scores for celebrity worship using the CAS in 35 published studies. We predict that celebrity worship will become progressively stronger over time.

Method

Data

Between 2001 and 2021 there were a total of 35 published studies in which the *Celebrity Attitude Scale* (CAS) was used in the United States, as defined below. Our sample included data from all 35 studies over 20 years in which the *Celebrity Attitude Scale* was used in its most common form, 23 items arranged into three subscales. The earliest publication of the 23-item scale was in 2001, while the most recent ones were published in 2021. For two of the studies, we had access to male and female samples separately (McCutcheon, 2002, McCutcheon et al., 2015) so for our purposes we counted them as separate studies. One additional publication (McCutcheon, Aruguete et al., 2016) included two separate studies with independent samples. We included these as separate studies for our analysis. We performed a power analysis with $\alpha = .05$, power = .80, and expected correlation coefficient = .20. The projected sample size needed with this effect size was $N = 33$ (Hulley et al., 2013). Therefore, our sample of 35 was adequate.

Measures

The *Celebrity Attitude Scale* (CAS) has been shown to have good psychometric properties over the course of several studies (Ashe & McCutcheon, 2001; Griffith et al., 2013; Maltby et al., 2002; McCutcheon et al., 2004; Wong et al., 2010). Total scale Cronbach alphas ranged from .84 to .94 across several studies (cited in McCutcheon et al., 2004). More recently Griffith et al. (2013) found total alphas of .92 and .91, and a test-retest reliability coefficient (with a three-month interval) of .76. Aruguete, Gillen et al. (2019) found a total alpha of .95.

The response format for the CAS is a 5-point scale with anchor points being *strongly agree* equal to 5 and *strongly disagree* equal to 1. The scale measures three aspects of celebrity worship identified

through factor analysis (McCutcheon et al., 2004). The first of the three subscales addresses an *Entertainment-Social* factor (ES; 10 items). On this level, people are attracted to their favorite celebrity because the celebrity provides entertainment and a vehicle for making contact with friends. A sample item is “My friends and I like to discuss what my favorite celebrity has done.” The *Intense-Personal* (IP; 9 items) level is more problematic (Maltby et al., 2003), and reveals an intense attraction to celebrities that has obvious maladaptive properties. A sample item is: “I have frequent thoughts about my favorite celebrity, even when I don’t want to.” The third level, *Borderline Pathological* (BP; 4 items), is considered to be the most problematic, as illustrated in this sample item: “I often feel compelled to learn the habits of my favorite celebrity.”

Procedure

To avoid largely unknown cultural differences, we only included studies involving participants from the United States. Samples included college students who completed paper-and-pencil versions of the CAS and adult Mechanical Turk (MTurk) samples who completed the CAS electronically. Each included study is listed in chronological order in Table 3. The gaps between 2002 and 2006, then again between 2006 and 2012, occur because most of the studies published in the gap years were conducted in countries other than the United States.

In order to operationally define celebrity worship, we needed to set reasonable objective standards as cutoff scores for the celebrity admiration measure. We reasoned that a celebrity worshipper is someone who scores just above the midpoint of a subscale on the CAS or higher. For example, the ES subscale contains 10 items; scores can range from 10 to 50, with a midpoint of 30, so we set the cutoff at 31. The IP subscale contains 9 items. Scores can range from 9 to 45, with a midpoint at 27, so we used 28 as a cutoff score for that subscale. The BP subscale contains only four items. Scores can range from 4 to 20, with a midpoint of 12. Thus, we used 13 as a cutoff point for the BP subscale.

To arrive at an estimate of the percentage of participants in each study who met or exceeded the celebrity worship criterion for each subscale, we subtracted the mean score from the cutoff score, then divided the result by the standard deviation. We then consulted a table showing the percent of the total area of the normal curve between a z -score and the mean. The result was subtracted from the number “one” to get the percentage of persons meeting or exceeding the cutoff score. For example, using the CAS ES mean for the first entry in Table 3: We subtracted the mean, 26.03, from the cutoff score of 31. That result, 4.97, was divided by the standard deviation, 8.5. We took that result, .58, and consulted a z -score table (Munro, 2001) to get a percentage of 28.20 above the mean of a normal distribution. Adding 28.20 to the 50% for scores to the left of the mean of the normal distribution yields 78.20. That is the celebrity worship cutoff score, but we wanted to know the percentage of participants who scored at or above the cutoff, so the 21.80 percent that appears in the box below “ES %” represents our best estimate of the percentage of participants who scored high enough on ES (31 or higher) to be counted as a celebrity worshipper.

To determine the relationship between percentages of those who scored as celebrity worshippers over the time period from 2001 to 2021, we computed three separate correlation coefficients between year of study (range = 1-21) and percentage of celebrity worshippers on each subscale (CAS ES, CAS IP, and CAS BP) using SPSS software. We hypothesized that the coefficients would be positive – that is, we predict that the percentage of celebrity worshippers has increased from 2001 to 2021.

For a few of the more recent studies, we had access to the actual numbers of participants who scored at or above the celebrity worship cutoff scores, which we converted to percentages. We compared these actual percentages versus estimated percentages for one of them (Aruguete, Gillen, et al., 2019). The estimated percentages were slightly lower (43.25%, 15.62%, 16.11% respectively, as compared to 48.61%, 20.90%, & 20.21% shown in Table 3), showing that our estimates for the number of celebrity worshippers in studies were relatively conservative.

Results

Data used for this study are available in Table 3. We hypothesized that the percentage of celebrity worshippers would increase from 2001 to 2021. In support of this hypothesis, year of publication was positively associated with percent of celebrity worshippers on each subscale of the CAS. The relationship between CAS ES (entertainment-social) percentage of celebrity worshippers and year of publication was .53 ($n = 35$, $p = .001$). The relationship between CAS IP (intense-personal) percentage of celebrity worshippers and year of publication was .50 ($n = 34$, $p = .005$). The relationship between CAS BP (borderline-pathological) percentage of celebrity worshippers and year of publication was .47 ($n = 35$, $p = .003$). These results indicate that celebrity worship has increased over time (see Table 1).

Table 1

Correlations between year of publication and percentages of those scored as celebrity worshippers for all studies

	Year	CAS ES	CAS IP	CAS BP
Year	---	.53**	.50**	.47**
CAS ES		---	.72**	.79**
CAS IP			---	.92**
CAS BP				---

Note: ** $p < .01$. * $p < .05$

Table 2 shows the mean percentages of celebrity worshippers (those exceeding the cutoff scores) from five of the earliest studies (Ashe, 2001; McCutcheon, 2002; McCutcheon et al., 2006; McCutcheon et al., 2012; Reeves et al., 2012), and the five most recent studies (McCutcheon, Collisson et al., 2021; Hitlan et al., 2021; Huynh & McCutcheon, 2021; McCutcheon, Shabahang et al., 2021; Williams et al., 2021). These findings highlight dramatic increases in celebrity worship over the 20-year period.

Table 2

Mean percentage of sample scoring as celebrity worshippers in the five earliest and five most recent studies

	5 Earliest Studies	5 Latest Studies
CAS ES	24.69	54.80
CAS IP	3.95	31.93
CAS BP	6.34	26.61

Table 3 shows the included studies, means and standard deviations, sample sizes, and percentages of those from each study that met our criteria for celebrity worshipper. It could be argued that one source of bias in our research is that the same participant pools have been tapped two or more times. This raises the remote possibility that students from these few institutions deviate from most American college students, thereby reducing the generalizability of our results. Students from Azusa Pacific University, Frostburg State University, Valdosta State University, Lincoln University of Missouri, Georgia Southern University, Black Hills State University, Mercer University, Penn State University at Abington, Elon University, Consumnes River College, Idaho State University, Shippensburg State University, and

Transylvania University, participated in two or more of the studies listed in Table 3, though no student participated more than once.

To test the possibility that one source of bias in our research stems from repeated use of the same participant pools, we examined a recent study in which data were collected from four collegiate institutions where the CAS had never before been administered (Hitlan et al., 2021). As shown in Table 3, the mean percentages were CAS ES = 50.3, CAS IP = 54.0, and CAS BP = 28.8. These percentages are consistent with, or even slightly higher than, other recent studies listed in Table 3. These results indicate that the observed increase in celebrity worship over time was not limited to a select group of institutions.

Table 3

Critical data from each study included in the sample

Included Study	ES Mean (SD)	ES %	IP Mean (SD)	IP %	BP Mean (SD)	BP %	N Sample
Ashe & McCutcheon, 2001	26.03 (8.5)	21.80	16.30 (6.7)	4.09	7.73 (3.2)	14.23	150
McCutcheon, 2002, males	26.23 (7.87)	26.43	16.28 (5.59)	2.22	7.54 (2.66)	2.02	71
McCutcheon, 2002, females	26.72 (9.05)	31.92	17.36 (7.95)	9.18	8.11 (4.06)	11.51	36
McCutcheon et al., 2006	25.43 (8.3)	25.14	14.94 (5.40)	2.07	7.27 (2.90)	2.44	297
McCutcheon et al., 2012	23.61 (8.10)	18.14	13.71 (5.76)	2.17	6.95 (2.78)	1.50	201
Reeves et al., 2012	18.93 (7.58)	5.59	12.80 (4.76)	0.12	3.93 (1.51)	0.10	171
Griffith et al., 2013	25.90 (7.90)	26.01	15.50 (5.70)	1.43	7.70 (2.80)	2.94	248
Aruguete et al., 2014		29.74		2.86		7.16	279
McCutcheon, Wong et al., 2014		22.03		5.08		5.08	59
- US data only							
Price et al., 2014	25.24 (8.1)	23.89	15.28 (5.9)	1.29	7.67 (2.9)	3.36	141
McCutcheon, Lowinger et al., 2014	25.00 (8.19)	23.27	14.77 (6.25)	1.70	7.18 (2.97)	2.50	164
Martin et al., 2015	20.18 (7.64)	10.03	15.22 (6.69)	2.81	7.28 (3.03)	2.94	181
McCutcheon et al., 2015 males	28.20 (8.25)	36.69	16.40 (6.87)	4.65	9.00 (3.16)	10.38	105
McCutcheon et al., 2015 females	27.80 (7.13)	32.64	14.90 (6.21)	1.43	8.39 (2.80)	5.05	78
McCutcheon, Gillen et al., 2016	28.00 (8.49)	36.22	17.92 (7.92)	10.20	8.46 (3.46)	9.51	330
McCutcheon, Aruguete et al., 2016, Study 1		9.99		12.80		12.76	145
McCutcheon, Aruguete et al., 2016, Study 2		40.94		22.24		25.63	145
McCutcheon et al., 2017		37.90		10.30		5.10	58

Greenwood et al., 2018	22.70 (7.70)	14.01	14.40 (5.94)	1.13	7.52 (3.04)	3.59	208
Browne et al., 2018, ES	31.78 (7.40)	77.11					291
Collisson et al., 2018	29.56 (8.11)	43.25	19.11 (7.91)	13.14	9.57 (3.49)	16.35	111
Lian et al., 2019	30.68 (8.36)	48.30	19.59 (8.41)	15.87	10.57 (3.69)	25.78	182
Aruguete, Huynh, Collisson et al., 2019	31.97 (7.80)	65.30	22.10 (9.39)	39.30	10.88 (3.91)	40.40	149
Aruguete, Huynh, McCutcheon et al., 2019	22.91 (6.66)	11.31	18.26 (7.67)	10.20	8.76 (3.34)	10.20	232
Aruguete, Gillen et al., 2019	29.48 (8.82)	48.61	18.18 (8.59)	20.90	9.38 (3.65)	20.21	185
Browne et al., 2019		57.30		6.30		12.50	190
Williams et al., 2020		53.50		5.10		10.80	157
Collisson et al., 2020		53.50		25.60		26.90	215
McCutcheon et al., 2020	30.03 (7.11)	44.63	18.75 (6.61)	8.23	9.00 (3.13)	10.03	193
Martinez-Berman et al., 2020		55.30		31.30		26.90	320
Huynh, 2021	32.68 (9.31)	66.40	24.86	45.58	12.02 (4.35)	46.44	351
Williams et al., 2021	29.16 (8.73)	41.68	18.29 (7.66)	10.38	8.82 (3.45)	10.31	137
McCutcheon et al., (US data only)	30.08 (7.91)	45.62	19.28 (7.31)	10.70	9.16 (3.23)	10.51	198
Hitlan et al., 2021		50.3		54.0		28.8	187
McCutcheon et al., 2021		70		39		37	323

Note: The McCutcheon et al. study (2014) shows only those data collected in the United States. The Browne et al. study (2018) used only the CAS ES.

Discussion

The results of this study support the hypothesis that celebrity worship has increased over the past 20 years. The significant correlations over time shown in Table 1 support this finding. Furthermore, examination of means from the first five years of publications, compared to the most recent five years, show that the

increased celebrity worship over time is dramatic (see Table 2). These trends make logical sense in light of the increased access to social media during this time. The ability to endlessly search information on celebrities, combined with social isolation, loneliness, and poor mental health status may contribute to increased levels of celebrity worship over time.

Increases in the use of social media such as Instagram have allowed for unprecedented access to the lives of celebrities (Stever & Lawson, 2013). Celebrities such as Kim Kardashian reach out to millions of followers with a single post. Candid-appearing photos and posts allow celebrities to invite fans into intimate aspects of their lives, like shopping and working out. Access to personal facets of celebrity lives may contribute to the notion that celebrities are everyday people. This may foster a sense of personal connection in which the fan feels emotionally close to the celebrity, though the relationship is one-sided, or “parasocial.” Research has shown that following celebrities on social media is associated with poor mental health, including body image dissatisfaction and drive for thinness (Ho et al., 2016). Therefore, the sharp increase in celebrity worship we observed over the past 20 years is likely to be related to increased access to information about celebrities on social media, which is associated with poor mental health.

The Absorption-Addiction Model (McCutcheon et al., 2002) predicts that people worship celebrities in an attempt to compensate for personal or social deficiencies. Therefore, the model predicts that poor mental health will be associated with celebrity worship. The increased prevalence of celebrity worship over the last 20 years supports the Absorption-Addiction model (McCutcheon et al., 2002) insofar as large, representative samples in the United States also show increases in depression (Geiger & Davis, 2020), anxiety (Goodwin et al., 2020), loneliness, and social isolation (Holt-Lunstad, 2017). Therefore, increases in celebrity worship over time may be a consequence of increased vulnerability to the formation of parasocial relationships in those experiencing a need for companionship or social support.

There are several limitations to this research. Our data cannot be generalized beyond the US, so we encourage others to conduct similar studies in other countries where celebrity worship has been measured. We also recognize that the cutoff points we used to define celebrity worship are somewhat arbitrary. More stringent criteria could have been used, lowering the percentages of celebrity worshippers in each of the three subscales. Finally, we recognize the limitation of not knowing exact percentages of celebrity worshippers we would have obtained if we had access to the raw data for each study. We believe that assuming a normal distribution of scores, using the means and standard deviations, and converting to z scores yielded a reasonably accurate estimate of the percentage of celebrity worshippers for each of the subscales. Furthermore, our comparison of estimates and actual percentages from the Aruguete, Gillen, et al. (2019) study supports our contention.

Celebrity worship is associated with a range of maladaptive correlates including anxiety and depression (Maltby et al., 2001), neuroticism (Maltby et al., 2011), narcissism (Ashe et al., 2005), materialistic values (Green et al., 2014), obsessive thoughts (McCutcheon, Aruguete, Jenkins, et al., 2016), loneliness (Ashe & McCutcheon, 2001) dissociation (Maltby et al., 2006) poor interpersonal skills (McCutcheon, Gillen et al., 2016), and disordered eating (Aruguete et al., 2014). As such, the increased incidence in celebrity worship we observed in this study is concerning. Future research should focus on understanding the implications of increases in celebrity worship. The Absorption-Addiction Model (McCutcheon et al., 2002) assumes that people gravitate toward celebrities to compensate for deficiencies in their lives. However, the outcome of the resulting parasocial relationship with celebrities is unclear. Do parasocial relationships with celebrities offer social support to vulnerable fans, or do they result in greater deficiencies because the fan acquires a new range of needs associated with the adoration of celebrity life (e.g., fame, wealth, thin body, or perfect hair/skin/teeth)? Future research should endeavor to investigate the causal aspects of celebrity worship on mental health.

Conclusion

What conclusions can be drawn from our research on trends in the frequency of celebrity worship in the United States over the most recent 20-year period? Our study has the advantage of using the same measure over that period, administered to a very large sample of participants from a variety of colleges and universities throughout the country. Furthermore, the criterion for determining the percentage of

participants who we identified as celebrity worshippers was constant throughout. The correlations we obtained between year of publication and percentage of participants identified as celebrity worshippers on all three levels were positive and highly significant. Furthermore, a comparison of results from the five earliest versus the five latest studies revealed a huge difference. Although samples were derived from several institutions on more than one occasion, a recent study by Hitlan et al. (2021) sampled participants from four institutions where the Celebrity Attitude Scale had not previously been used, with results similar to those of other studies published in the last few years. Therefore, we conclude that the trend we observed was a real one, and because celebrity worship, especially at the two more problematic levels, is associated with a variety of undesirable attitudes and behaviors described above, there is reason to be concerned about this trend. Our results should be of concern to researchers who are interested in studying celebrity worshippers, because it suggests that the mental and behavioral problems associated with it in 2001 are worse now than they were then. The alarming trend we observed should also be of concern to mental health counselors and therapists, who might consider therapeutic strategies designed to change the attitudes and behaviors of those who score high on the Celebrity Attitude Scale, particularly the two problematic levels of that scale.

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