

# Teachers Feel Lonely Too: A Study of Teachers' Personal and Professional Characteristics Associated with Loneliness

Roque do Carmo Amorim Neto

Davenport University  
Michigan, USA

## ABSTRACT

This study aimed to identify the demographic and professional characteristics associated with loneliness among a sample of Brazilian teachers, and to assess the extent to which job satisfaction and loneliness are associated. Participants were 1,194 Brazilian teachers. Using a snowball sampling strategy, participants answered an online survey questionnaire. A series of *t*-tests, ANOVAs, and correlational analyses were performed. The results suggest that teachers who are not in a relationship, teachers who attended a private college, and those teaching in a public school are more likely to feel lonely. The results also indicate that the more lonely teachers feel, more dissatisfied they are with their jobs.

**Keywords:** Loneliness; Professional Characteristics; Teachers; Teachers' Job Satisfaction.

## RESUMO

*Professores Também Sentem Solidão: Estudo das Características Pessoais e Profissionais de Docentes Associadas à Solidão*

O objetivo do presente estudo foi identificar as características pessoais e profissionais associadas com a solidão entre professores brasileiros e medir o quanto a satisfação no trabalho e a solidão estão associadas. Participaram deste estudo um total de 1.194 professores. Recrutados por uma amostragem do tipo bola de neve, os participantes responderam a um questionário online. Foram conduzidos os testes *t*, ANOVA e correlação de Pearson. Os resultados indicam que professores que estão em um relacionamento amoroso, aqueles que estudaram em faculdades privadas e aqueles que lecionam em escolas públicas são mais propensos a experimentarem solidão. Os resultados ainda revelam que quanto maior o nível de solidão, maior a insatisfação do professor com o seu trabalho.

**Palavras-chave:** Características Profissionais; Professores; Satisfação no Trabalho Docente; Solidão.

## RESUMEN

*Los Maestros También Sufren de Soledad: Un Estudio de las Características Asociadas con la Soledad*

El estudio se proponía identificar las características demográficas y profesionales asociadas con la soledad, entre un grupo de maestros brasileños, y estimar hasta qué punto están asociadas la satisfacción en el trabajo y el sentido de soledad. Los participantes fueron 1,194 maestros brasileños. Utilizando la estrategia del modelo de bola de nieve, los participantes contestaron un cuestionario en línea. Se llevaron a cabo una serie de *t*-tests, ANOVA, y análisis correlacionados. Los resultados sugieren que los maestros que no se inter-relacionan, los que enseñan en escuelas privadas y los que enseñan en escuelas públicas, están más propensos a sentirse solos. Estos resultados indican también que cuanto más solos se sienten los maestros, menos satisfechos están en su trabajo.

**Palabras clave:** Características Profesionales; Maestros; Satisfacción del Maestro en su Trabajo; Soledad.

## INTRODUCTION

The research conducted on loneliness in the past few decades provided the scientific community with very closely related definitions of loneliness, validated scales of measurement, and a vast list of the psychological, social and physical consequences of the negative impact of loneliness on individuals at any age from childhood to late adulthood (Akerlind & Hornquist, 1992; Cacioppo & Patrick, 2008; Margalit, 2010; Nummela et al., 2011; Russell, Peplau, & Cutrona, 1980). However, up to now the studies on loneliness have not yet focused on the impact of loneliness on the individuals' professional lives.

If it is true that the experience of loneliness impacts affect, biology and cognition, impairing the individual's ability to self-regulate (Cacioppo & Hawkley, 2009; Cacioppo & Patrick, 2008), it must be true that this experience has some kind of impact in an individual's professional life. No one leaves this kind of problem behind when they go out to work. The logic that the negative consequences of loneliness may also leak into professional life leads to the present examination of loneliness on the professional life of a specific group of professionals.

Among the professional groups that have often been involved in research of loneliness are teachers. However, up to now their participation has been limited to purposes such as the measure of loneliness among children and teenagers, and validation of instruments (Dussault, Fernet, Austin, & Leroux, 2009; Galanaki & Vassilopoulou, 2007). Assessment of teachers' loneliness and its implications for the educational field are scarce. To start building a body of literature on the impact of loneliness in a specific professional field, the purpose of this study was to identify the demographic and professional characteristics of a national convenience sample of Brazilian teachers that may be associated with loneliness. This study also aimed to examine the extent to which loneliness is associated with teachers' job satisfaction, in this study defined as "teachers' affective reactions to their work or to their teaching role" (Skaalvik & Skaalvik, 2011, p. 1030).

## LONELINESS

Loneliness is the subjective experience of perceived discrepancy between the desired and the actual quality of a person's relationships (Cacioppo & Patrick, 2008; Margalit, 2010; Masi et al., 2011). Loneliness is less related to the quantity of relationships than it is to the quality of human interactions. Lonely individuals may spend many hours every day surrounded by friendly

colleagues at work or by caring family members, but yet they will perceive the quality of these interactions as unsatisfactory (Cacioppo & Patrick, 2008). Research shows that there is no statistically significant difference in time spent alone for those who feel lonely and for those who feel satisfactorily connected with others (Hawkley, Burleson, Berntson, & Cacioppo, 2003). Loneliness has to do with the perceived quality of relationships, and it is distinct from social isolation, which is defined by a low number of social networks. In this sense while people in committed relationships are more likely to feel less lonely, the relationship status does not guarantee the quality of the intimate connection (Cacioppo & Patrick, 2008).

Loneliness is a distressing emotional experience, considered to be a response to unfulfilled needs for social connection (Margalit, 2010). However, it is not a disease (Cacioppo & Patrick, 2008). It is a deficit similar to hunger or thirst that motivates the individual to act in order to achieve equilibrium again. This is why loneliness is a transient or temporary state for many individuals (Masi et al., 2011). However, there are those who do not succeed in creating meaningful connections, which would otherwise diminish their distress. "For as many as 15-30% of the general population, however, loneliness is a chronic state" (Hawkley & Cacioppo, 2010, p. 218).

According to Weiss (1973), one of the first to develop a theory on loneliness, the experience of loneliness is pervasive, affecting 25% of the American population. More recent data showed that intense loneliness has been found in approximately 6% of middle-aged adults (Masi et al., 2011). Among those over 65, the percentage rises to 40% of the individuals reporting feelings of loneliness at least sometimes (Hawkley & Cacioppo, 2010).

In terms of gender, there is no agreement about which gender reports higher levels of loneliness. According to McManus (2011), gender differences vary according to the instrument used to assess loneliness. This argument is also corroborated by Borys and Perlman (1985), who affirm that in studies that use instruments that include the word "lonely", women are more likely to score higher. However, when instruments are used that do not require the inclusion of the word "lonely" or "loneliness", gender differences are usually not statistically significant. This is the case with the UCLA Loneliness Scale, the most widely used instrument in research regarding loneliness with adults (Pinquart & Sorenson, 2001). Studies in which this instrument has been used have not found significant gender differences (Heinrich & Gullone, 2006). A possible explanation for these differences regarding

the inclusion or not of the term “lonely” in the instrument is that women pay more attention to their emotions and are more likely to express their emotional state (Cacioppo & Hawkley, 2009).

According to Cacioppo and Patrick (2008), there are three structural elements of loneliness which, when combined, can increase its detrimental effects. The first element is genetic vulnerability, which is expressed by the “genetic propensity that sets the thermostat for feelings of loneliness, making the individual crave social connection a little or a lot” (Cacioppo & Patrick, 2008, p. 133), and “the level of distress aroused by social disconnection” (Masi et al., 2011, p. 221). Research conducted on siblings in the United States and in the Netherlands suggests that the genetic influence in loneliness is approximately 50%, while environmental influences account for the other half of the influences (Bartels, Cacioppo, Hudziak, & Boomsma, 2008; Boomsma, Willemsen, Dolan, Hawkley, & Cacioppo, 2005; McGuire & Clifford, 2000).

The second structural element of loneliness is self-regulation. Self-regulation is the “ability to exert control over one’s own inner states, processes and responses” (Baumeister et al., 1994, p. 6). According to Baumeister et al. (2005), social acceptance is one of the motivations for the development of this ability. When the goal of positive relationships is not achieved and an individual experiences rejection, their ability to self-regulate reduces, leading to behaviors that will ultimately reinforce the feelings of loneliness, in a self-destructive cycle (Cacioppo & Patrick, 2008). Repeated experiences of distress motivated by feelings of social exclusion or rejection impair the ability to self-regulate (Baumeister et al., 2005; Hawkley & Cacioppo, 2010).

The third structural element of loneliness is social cognition. When loneliness is combined with the impairment of self-regulation, the individual tends to experience distorted social cognition, which defines the way they see themselves, others and the interactions established among them (Cacioppo & Patrick, 2008). Such cognitive distortions lead people who experience more intense loneliness to develop hypersensitivity to negative social information, to rate their social interactions more negatively, to fear negative evaluation, to engage in more defensive behaviors to avoid rejection and to form worse impressions of others (Cacioppo & Hawkley, 2009; Cacioppo, Hawkley et al., 2006).

When it comes to the impact of loneliness on people’s daily lives, research has shown that loneliness is a risk factor for morbidity and mortality (Nummela et al., 2011; Penninx et al., 1997; Seeman, 2000; Sugisawa, Liang, & Liu, 1994). For instance,

loneliness is an important risk factor for depressive symptoms across the life span for healthy people as well as for people with medical conditions (Cacioppo, Hughes, et al., 2006; Grov, Golub, Parsons, Brennan, & Karpiak, 2010; Qualter, Brown, Munn, & Rotenberg, 2010). A five-year longitudinal study (from 2002 to 2006) assessed the relationship between loneliness and depressive symptomatology in a sample of participants aged between 50 and 68 years old (Cacioppo et al., 2010). They found “that loneliness predicts if not promotes increases in depressive symptomatology regardless of age, gender, or ethnicity” (Cacioppo et al., 2010, p. 458). Another finding was that the occurrence of loneliness in a given year would be a more important predictor of depressive symptoms in the following year than would the presence of depressive symptoms in that given year (Cacioppo et al., 2010).

In addition to depression, loneliness has also been linked to stress, poor sleep quality, alcoholism, and reduced physical activity (Akerlind & Hornquist, 1992; Hawkley, Thisted, & Cacioppo, 2009; Segrin & Domschke, 2011; Segrin & Passalacqua, 2010). This set of negative consequences does not take place in a vacuum. Lonely individuals are affected in many areas of their lives, including the exercise of their profession.

## STUDIES OF LONELINESS INVOLVING TEACHERS

Most studies on loneliness involving teachers aim to investigate children’s experience of loneliness. For example, teachers in the UK participated in an eight-year longitudinal study that explored whether or not childhood loneliness predicted adolescent depressive symptoms. In this study, teachers completed the Teacher-Classroom Adjustment Rating Scale, to rate school adjustment problems of the students who took part in the study (Qualter et al., 2010). Galanaki and Vassilopoulou (2007) conducted an extensive review of literature that included many studies in which teachers’ abilities and attitudes toward students were associated with students’ loneliness. A number of other studies assessing loneliness include teachers in a similar way (Erath, Flanagan, Bierman, & Tu, 2010; Fontaine et al., 2009; Lim & Smith, 2008; Margalit, Mioduser, Yagon, & Neuberger, 1997).

Teachers have also taken part in research that measured their level of loneliness, but the goal of these studies was to explore instruments used to assess loneliness. Dussault, Fernet, Austin, and Leroux (2009) examined the factorial validity of the Revised UCLA Loneliness Scale with a random sample of 1,157 Canadian teachers. In discussing the results the

researchers addressed only the factorial structure of the scale. Similarly, Russell (1996) evaluated reliability, validity and factor structure of the UCLA Loneliness Scale (Version 3) with different groups. Participants included students, nurses, elderly and a sample of 316 public school teachers in Iowa. Again, in the discussion of the findings, Russell focused exclusively on the properties of the scale, not on specific characteristics of each group. Seemingly, the only study found that explores loneliness among teachers linking it to professional experience was conducted by Neto and Barros (1992), with a sample of 296 teachers (240 females and 56 males) in Portugal.

Neto and Barros (1992) found that teachers with more than 20 years in the profession are significantly lonelier than those with less time teaching. Also, teachers who teach in the initial grades are lonelier than those who teach in the final elementary grades or in high school. In addition to exploring these professional characteristics, this study also looked at some psychological measures. Loneliness was found to be associated with social anxiety ( $r=.59$ ), psychological maturity ( $r=-.19$ ), self-efficacy ( $r=-.21$ ), and life satisfaction ( $r=-.36$ ), among other variables (Neto & Barros, 1992).

Given that loneliness may impact teachers' exercise of their profession, the relationships between loneliness and self-efficacy, and loneliness and life satisfaction, are very important to the present study. Self-efficacy is one of the predictors of job satisfaction (Duffy & Lent, 2009; Lent & Brown, 2006). While Neto and Barros' (1992) study may be one of the first to associate loneliness and self-efficacy, it is not the only one. Dussault and Deaudelin (2001) found a negative correlation between loneliness and self-efficacy ( $r=-.25$ ) in a sample of 314 French Canadian undergrad students enrolled in education majors. The results of these studies suggest that the higher the level of loneliness, the weaker the beliefs about one's ability to produce desired outcomes. Another study linking loneliness and self-efficacy in a sample of American undergraduate students (Wei, Russel & Zakalik, 2005) also supports the findings by Neto and Barros (1992), and Dussault and Deaudelin (2001).

Research has also explored the relationship between life satisfaction and job satisfaction. A meta-analysis of 34 studies on job and life satisfaction found a positive correlation ( $r=.44$ ) between these two constructs (Tait, Padgett & Baldwin, 1989). A more recent study with a sample of 235 Italian teachers found a positive correlation ( $r=.46$ ) between job satisfaction and life satisfaction (Lent et al., 2011). Because a relationship between loneliness and job satisfaction has not yet

been established, the fact that loneliness is associated with life satisfaction may increase the likelihood that loneliness can also be associated with job satisfaction.

To fill these gaps pointed above, this study aimed not only to identify the demographic and professional characteristics of teachers that are associated with loneliness, but also to assess the relationship between loneliness and teachers' job satisfaction on a national convenience sample of Brazilian teachers.

## METHOD

### Participants and procedure

To comprise a national convenience sample, snowball sampling strategy was used. Participants were limited to Brazilian teachers older than 18, teaching in any grade from kindergarten through high school in public and private schools. They were invited to answer the survey and to invite additional participants who fit these inclusion criteria. The questionnaire was also sent to teachers' unions. A cover letter asked them to include the link for the questionnaire in their newsletters.

A total of 1,345 records were collected for this study. However, 151 were removed from the data due to the inclusion criteria or/and a very small number of items answered. The remaining sample consisted of 1,194 teachers (830 women, 351 men, 13 non-identified). They taught in public ( $n=906$ , 75.9%) or private schools ( $n=153$ , 12.8%) or both ( $n=129$ , 10.8%); 6 teachers (0.5%) did not provide this information. The grade levels taught were kindergarten ( $n=137$ , 11.5%), fundamental ( $n=373$ , 31.2%), high school ( $n=239$ , 20%), more than one level ( $n=433$ , 36.3%), and 12 (1%) of the participants did not respond to this question.

### Measures

Participants were asked to supply information about their age, gender, income, relationship status, type of college attended, and degree achieved. They also answered questions related to their profession: type of school they teach in, years of teaching experience, grade levels taught, their number of absences in the past term, number of working hours per week, and number of schools in which they teach.

In addition to that, they completed a four-item scale developed by Skaalvik and Skaalvik (2011) aimed to assess job satisfaction. The four items examine the level of enjoyment and reward drawn from work. A total score was computed based on the simple sum of responses. In a study with Norwegian teachers, Skaalvik and Skaalvik (2011) found a Cronbach's

alpha of .91 for this instrument. For the current study, Cronbach's alpha measured .89.

Participants also answered the Portuguese version of the Revised UCLA Loneliness Scale, which is a unidimensional measure of loneliness (Neto, 1989). This measure comprises 18 items that are rated on a 4-point Likert scale ranging from 1 (never) to 4 (often). A total score is computed based on the simple sum of responses. The Portuguese version of the Revised UCLA Loneliness Scale has two items less than the original scale in English. This is due to the fact that the Portuguese language uses the same word for "alone" and "lonely." Question 4 of the English version of the scale uses the term "alone," as in "I do not feel alone" (Russell, Peplau, & Cutrona, 1980, p. 475). To reduce the social desirability effect that may come from a stigma related to loneliness, the author of the Portuguese version decided to eliminate this item. Also to make sure that the scale had an even number of positively and negatively worded items as the original version of the instrument, Neto eliminated item 12 of the original instrument, "My social relationships are superficial" (Russell et al., 1980, p. 475). The Portuguese version of the Revised UCLA Loneliness Scale has good internal reliability with a Cronbach's alpha of .87 (Neto, 1989). In the current study, Cronbach's alpha was .91.

## RESULTS

To identify teachers' demographic and professional characteristics associated with loneliness, a series of analysis of variance (ANOVA), independent sample *t*-test, and Pearson's product moment correlations were

performed. Pearson's product moment correlations were also used to assess the extent to which loneliness and teachers' job satisfaction are associated.

Normality for the scores of the variables was investigated with SPSS Explore. The Kolmogorov-Smirnov Test (K-S) for normality indicated that all variables were not normally distributed ( $p < .01$ ). However, the K-S Test is sensitive to larger sample sizes, with significant findings returned when sample sizes are larger ( $n > 50$ ; Pallant, 2007). A visual check of histograms and Normal Q-Q plots for the variables indicated distributions close to normal. A comparison of the mean, 5% trimmed mean, and median relating to each of the variable indicated numbers close in value for the measures indicating that outliers and skew were not adversely affecting the distribution of variables. Therefore the assumption of normality was not considered violated and parametric tests were used on the variables during inferential analysis.

## Correlational Analysis

A series of Pearson's product moment correlations explored the association between loneliness and age, monthly income, highest degree achieved, years of teaching experience, number of absences in the past term, number of working hours per week, number of schools they teach in, and teacher's job satisfaction. As shown in Table 1, significant but weak correlations were found between loneliness and monthly income, highest degree achieved, years of teaching experience and number of absences in the past term. A moderate negative correlation was found between loneliness and job satisfaction.

TABLE 1  
Correlations for Bi-Variate Relationships of Variables Utilized for Inferential Analysis

Variable	1	2	3	4	5	6	7	8
1 Age								
2 Monthly income	.283***							
3 Highest degree achieved	.134***	.310***						
4 Years of teaching experience	.669***	.374***	.222***					
5 Number of absences	-.019	.005	-.037	.007				
6 Hours per week	.119***	.354***	.081***	.232***	.162***			
7 Number of schools taught in	.013	.231***	.119***	.109***	.099***	.317***		
8 Loneliness	-.041	-.147***	-.072*	-.096***	.149***	-.010	-.013	
9 Teachers' Job Satisfaction	.098***	.099***	.088***	.126***	-.251***	-.027	-.091***	-.359***

Note: \*  $p < .05$ ; \*\*\*  $p < .001$ . Sample size (*n*) ranges from 964 to 1,194.

## Analysis of Variance

Analysis of variance tests for the dependent variable loneliness and the grouping variables for type of school in which teachers currently work (private, public or both) and grade level taught (kindergarten, fundamental, high school or more than one grade level) indicated that the mean of the loneliness for public school was significantly higher than the scores for the private school and the combination of both schools. The results of the ANOVA tests are presented in Table 2. Table 3 presents the post hoc comparisons using Tukey's HSD Test.

## Independent Samples *t*-tests

A series of *t*-tests investigated the mean differences for loneliness between the two categories for gender, relationship status groups and type of college attended. The results presented in Table 4 show that teachers in a relationship had significantly lower mean scores than those not in a relationship, and that teachers who attended a private college had significantly lower means scores of loneliness than those who attended a public college. No significant gender differences were found.

TABLE 2  
Results of ANOVA Findings for Loneliness as Relates to Type of School and Grade Level

<i>Dependent Variable / Group</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>F</i>	$\eta^2$
Loneliness				7.23***	.01
Private	128	32.79	10.12		
Public	725	35.55	9.49		
Both	106	32.89	8.86		
Loneliness				1.42	.00
Kindergarten	106	34.20	10.68		
Fundamental	296	35.56	9.63		
High School	194	35.49	9.51		
More than 1 grade level	359	34.27	9.23		

Note: \*\*\*  $p \leq .001$ . *M* = Mean; *SD* = Standard Deviation.

TABLE 3  
Results of Post Hoc Comparisons of ANOVA Findings via Tukey's Highly Significant Difference (HSD) Test

<i>Dependent Variable / Cohort (I)</i>	<i>Cohort (J)</i>	<i>Mean Difference (I - J)</i>	<i>SE</i>	<i>p</i>
Loneliness				
Private	Both	-0.10	1.25	.997
Public	Private	2.76	0.91	.007
Public	Both	2.66	0.99	.020
Loneliness				
Kindergarten	Fundamental	-1.36	1.08	.593
Kindergarten	High School	-1.29	1.16	.680
Kindergarten	More than 1	-0.07	1.06	1.000
Fundamental	High School	0.07	0.88	1.000
Fundamental	More than 1	1.29	0.75	.316
High School	More than 1	1.22	0.85	.480

Note: *SE* = Standard Error of the Mean Difference.

TABLE 4  
Results of Independent Samples T-tests Loneliness for Mean Differences  
between Gender, Relationship Status and Type of College Attended Groups

<i>Variable/Group</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>Mean Diff.</i>	<i>SE Mean Diff.</i>	<i>t</i>
Loneliness				-1.00	0.68	-1.48
Female	668	34.61	9.72			
Male	285	35.61	9.22			
Loneliness				-3.53	0.71	-5.00***
In a relationship	720	33.99	9.46			
Not in a relationship	237	37.52	9.37			
Loneliness				-1.56	0.62	-2.50*
Private	466	34.13	9.44			
Public	476	35.69	9.67			

\*  $p < .05$ ; \*\*\*  $p < .001$ ;  $M$  = Mean;  $SD$  = Standard Deviation;  $SE$  = Standard Error.

## DISCUSSION

This study identified the demographic and professional characteristics of Brazilian teachers that are associated with loneliness. The extent to which loneliness and teachers' job satisfaction are associated was also assessed. The results show that the type of school in which participants taught, their relationship status, and the type of college attended are associated with loneliness. The results also show a significant, but weak correlation between monthly income, highest degree achieved, years of teaching experience, and number of absences in the past term. A moderate negative correlation was found between loneliness and job satisfaction.

The findings regarding relationship status and the correlation between loneliness and job satisfaction did not come as a surprise. Cacioppo and Patrick (2008) remind us that being in a relationship or even being married does not mean lower levels of loneliness, because it is the quality of the relationship that matters. However, they also argue that people in a relationship are more likely to report less feeling of loneliness (Cacioppo & Patrick, 2008). This is also confirmed by this study. Brazilian teachers in a relationship reported significantly lower levels of loneliness than reported those who were not in a relationship. Also, while this must be one of the first studies to assess the relationship between loneliness and teachers' job satisfaction, the connections established through the literature review between loneliness and the predictors of job satisfaction (Dussault & Deaudelin, 2001; Lent et al., 2011; Tait, Padgett, & Baldwin, 1989; Neto &

Barros, 1992) enable us to expect to find that the more Brazilian teachers feel lonely, the less they feel satisfied with their jobs. This finding is also congruent with the fact that both loneliness and teachers' job satisfaction are intrinsically rooted in an individual's emotional dimension.

Probably the most original finding of this study has to do with teachers from public schools reporting significantly higher levels of loneliness than those teaching in private schools or those teaching in both. This may have to do with a series of structural deficiencies that harm public education offered in Brazil, and also in many other countries of South and Central America and other regions. While further research is necessary to identify these structural deficiencies, it is possible to pinpoint some realities present in public schools that may increase the connection between loneliness and public schools. The first one has to do with support and challenge. In Brazil, teachers in private schools are used to being regularly evaluated and also have resources available to improve the quality of their teaching, which ultimately can lead to social approval and increased self-esteem. This combination of support and challenge that is part of the routine of many private school teachers somehow delivers the message "you are not alone," for teachers are constantly evaluated and will receive help to succeed professionally. However, this is not the case in public schools. In Brazil once a teacher passes the exams to be hired in a public school, it means automatic tenure. Unless convicted of a crime, no one can fire her or him. Somehow this professional stability is mistaken

for the right not to be evaluated or receive help to improve some deficiencies. Add to that the lack of resources for teachers' continuous education, or even material resources such as a comfortable room where teachers can sit together to discuss educational themes.

Another original finding that deserves further exploration of its meaning is the fact that teachers who attended a private college feel less lonely. This finding sounds somehow ironic when put side-by-side to the previous one. The reason is that those who attend private colleges in general attended public high and elementary schools. In Brazil, the acclaimed public colleges and universities are mostly filled with students who attended a good private school and may have the privilege of receiving higher education for free with the most qualified professors and researchers. Further research must explore the characteristics of public and private colleges that are implicated in this difference in levels of loneliness.

The importance of the findings of this study, however, does not consist only of their originality. The fact that no significant differences on loneliness were found between males and females reinforces McManus' (2011) and Borys and Perlman's (1985) hypothesis that when studies use instruments to assess loneliness that do not include the words "lonely" or "loneliness" the findings do not yield significant gender differences. This is the case with the Portuguese version of the Revised UCLA Loneliness Scale, which eliminated item 4 for including the word "alone." This finding also is congruent with Neto and Barros' (1992) study in which no significant gender differences were found. However, when it comes to grade level taught, the results of this study contradict Neto and Barros' (1992). No significant difference was found among grade levels taught in the Brazilian study. In comparing these findings with the ones by Neto and Barros (1992) it is not completely clear if the weak correlation between years of teaching experience and loneliness means an agreement with the significant difference found in

the Portuguese study or if it is simply due to the large sample size of this study.

After reflecting on the main findings of this study, a word must be said about its limitations. First, because participation in this study demanded the use of the Internet, and while Internet access has been growing in Brazil, teachers who live in small towns where Internet access is limited were more likely to be prevented from taking part in this study. Second, sampling may have been biased toward those who are more social because data collection was based on the volunteers' social network. Third, the snowball sampling technique that was used in this research may have resulted in the recruitment of individuals who do not meet the participation criteria of this study. However, demographic information was used to screen out respondents who do not meet the participation criteria. In addition, the fact that no incentives were offered is likely to have reduced the possibility of individuals answering the survey in spite of not meeting the participation criteria.

Despite these limitations, the results of this study open a series of possibilities for future research. The big challenge is to identify the variables of the professional field that may show the impact of loneliness. This may ultimately lead to creative ways to reduce this impact and thereby ameliorate the individual's quality of life and, in the specific case of teachers, the quality of their work with students, peers and leaders.

The results showing that teachers working in public schools scored higher in loneliness give direction to future studies. There is a need to find answers to questions such as: 1) What are the structural characteristics of public schools that foster the experience of loneliness? 2) What are the structural characteristics of public schools that attract lonely individuals? 3) What are the impacts of teachers' loneliness on their students? Once questions such as these are addressed, it will be possible to give another step toward building a body of literature on the impact of loneliness on the exercise of the teaching profession.

## REFERENCES

- Akerlind, I. & Hornquist, J. O. (1992). Loneliness and alcohol abuse: A review of evidences of an interplay. *Social Science & Medicine*, 34(4), 405-414. [http://dx.doi.org/10.1016/0277-9536\(92\)90300-F](http://dx.doi.org/10.1016/0277-9536(92)90300-F)
- Bartels, M., Cacioppo, J. T., Hudziak, J. J., & Boomsma, D. I. (2008). Genetic and environmental contributions to stability in loneliness throughout childhood. *American Journal of Medical Genetics Part B*, 147B, 385-391. <http://dx.doi.org/10.1002/ajmg.b.30608>
- Baumeister, R. F., DeWall, C. N., Ciarocco, N. J., & Twenge, J. M. (2005). Social exclusion impairs self-regulation. *Journal of Personality and Social Psychology*, 88(4), 589-604. <http://dx.doi.org/10.1037/0022-3514.88.4.589>
- Baumeister, R. F., Heatherton, T. F., & Tice, D. M. (1994). *Losing control: How and why people fail at self-regulation*. San Diego, CA: Academic Press.

- Boomsma, D. I., Willemsen, G., Dolan, C. V., Hawkey, L. C., & Cacioppo, J. T. (2005). Genetic and environmental contributions to loneliness in adults: The Netherlands twin register study. *Behavior Genetics*, 35(6), 745-752. <http://dx.doi.org/10.1007/s10519-005-6040-8>
- Borys, S. & Perlman, D. (1985). Gender differences in loneliness. *Personality and Social Psychology Bulletin*, 11(1), 63-74. <http://dx.doi.org/10.1177/0146167285111006>
- Cacioppo, J. T. & Hawkey, L. C. (2009). Perceived social isolation and cognition. *Trends in Cognitive Sciences*, 13(10), 447-454. <http://dx.doi.org/10.1016/j.tics.2009.06.005>
- Cacioppo, J. T., Hawkey, L. C., Ernst, J. M., Burleson, M., Berntson, G. G., Nouriani, B., & Spiegel, D. (2006). Loneliness within a nomological net: An evolutionary perspective. *Journal of Research in Personality*, 40, 1054-1085. <http://dx.doi.org/10.1016/j.jrp.2005.11.007>
- Cacioppo, J. T., Hawkey, L. C., & Thisted, R. A. (2010). Perceived social isolation makes me sad: 5-year cross-lagged analyses of loneliness and depressive symptomatology in the Chicago Health, Aging, and Social Relations Study. *Psychology and Aging*, 25(2), 453-463. <http://dx.doi.org/10.1037/a0017216>
- Cacioppo, J. T., Hughes, M. E., Waite, L. J., Hawkey, L. C., & Thisted, R. A. (2006). Loneliness as a specific risk factor for depressive symptoms: Cross-sectional and longitudinal analyses. *Psychology and Aging*, 21(1), 140-151. <http://dx.doi.org/10.1037/0882-7974.21.1.140>
- Cacioppo, J. T. & Patrick, W. (2008). *Loneliness: Human nature and the need for social connection*. New York, NY: Norton.
- Duffy, R. D. & Lent, R. W. (2009). Test of a social cognitive model of work satisfaction in teachers. *Journal of Vocational Behavior*, 75, 212-223. <http://dx.doi.org/10.1016/j.jvb.2009.06.001>
- Dussault, M. & Deaudelin, C. (2001). Loneliness and self-efficacy in education majors. *Psychological Reports*, 89, 285-289. <http://dx.doi.org/10.2466/pr0.2001.89.2.285>
- Dussault, M., Fernet, C., Austin, S., & Leroux, M. (2009). Revisiting the factorial validity of the revised UCLA loneliness scale: A test of competing models in a sample of teachers. *Psychological Reports*, 105, 849-856. <http://dx.doi.org/10.2466/PR0.105.3.849-856>
- Erath, S. A., Flanagan, K. S., Bierman, K. L., & Tu, K. M. (2010). Friendships moderate psychosocial maladjustment in socially anxious early adolescents. *Journal of Applied Developmental Psychology*, 31(1), 15-26. <http://dx.doi.org/10.1016/j.appdev.2009.05.005>
- Fontaine, R. G., Yang, C., Burks, V. S., Dodge, K. A., Price, J. M., Pettit, G. S., & Bates, J. E. (2009). Loneliness as a partial mediator of the relation between low social preference in childhood and anxious/depressed symptoms in adolescence. *Development and Psychopathology*, 21(2), 479-491. <http://dx.doi.org/10.1017/S0954579409000261>
- Galanaki, E. P. & Vassilopoulou, H. D. (2007). Teachers and children's loneliness: A review of the literature and educational implications. *European Journal of Psychology of Education*, 22(4), 455-475. <http://dx.doi.org/10.1007/BF03173466>
- Grov, C., Golub, S. A., Parsons, J. T., Brennan, M., & Karpiak, S. E. (2010). Loneliness and HIV-related stigma explain depression among older HIV-positive adults. *AIDS Care*, 22(5), 630-639. <http://dx.doi.org/10.1080/09540120903280901>
- Hawkey, L. C., Burleson, M. H., Berntson, G. G., & Cacioppo, J. T. (2003). Loneliness in everyday life: Cardiovascular activity, psychosocial context, and health behaviors. *Journal of Personality and Social Psychology*, 85, 105-120. <http://dx.doi.org/10.1037/0022-3514.85.1.105>
- Hawkey, L. C. & Cacioppo, J. T. (2010). Loneliness matters: A theoretical and empirical review of consequences and mechanisms. *Annals of Behavioral Medicine*, 40(2), 218-227. <http://dx.doi.org/10.1007/s12160-010-9210-8>
- Hawkey, L. C., Thisted, R. A., & Cacioppo, J. T. (2009). Loneliness predicts reduced physical activity: Cross-sectional & longitudinal analyses. *Health Psychology*, 28(3), 354-363. <http://dx.doi.org/10.1037/a0014400>
- Heinrich, L. M. & Gullone, E. (2006). The clinical significance of loneliness: A literature review. *Clinical Psychology Review*, 26, 695-718. <http://dx.doi.org/10.1016/j.cpr.2006.04.002>
- Lent, R. W. & Brown, S. D. (2006). Integrating person and situation perspectives on work satisfaction: A social-cognitive view. *Journal of Vocational Behavior*, 26, 236-247. <http://dx.doi.org/10.1016/j.jvb.2006.02.006>
- Lent, R. W., Nota, L., Soresi, S., Ginevra, M. C., Duffy, R. D., & Brown, S. D. (2011). Predicting the job and life satisfaction of Italian teachers: Test of a social cognitive model. *Journal of Vocational Behavior*, 79, 91-97. <http://dx.doi.org/10.1016/j.jvb.2010.12.006>
- Lim, S. & Smith, J. (2008). The structural relationships of parenting style, creative personality, and loneliness. *Creativity Research Journal*, 20(4), 412-419. <http://dx.doi.org/10.1080/10400410802391868>
- Margalit, M. (2010). *Lonely children and adolescents: Self-perceptions, social exclusion and hope*. New York, NY: Springer. <http://dx.doi.org/10.1007/978-1-4419-6284-3>
- Margalit, M., Mioduser, D., Yagon, M. A., & Neuberger, S. (1997). Teachers' and peers' perceptions of children with learning disorders: Consistency and change. *European Journal of Special Needs Education*, 12(3), 225-238. <http://dx.doi.org/10.1080/0885625970120305>
- Masi, C. M., Chen, H., Hawkey, L. C., & Cacioppo, J. T. (2011). A meta-analysis of interventions to reduce loneliness. *Personality and Social Psychology Review*, 15(3), 219-266. <http://dx.doi.org/10.1177/1088868310377394>

- McGuire, S. & Clifford, J. (2000). Genetic and environmental contributions to loneliness in children. *Psychological Science*, 11(6), 487-491. <http://dx.doi.org/10.1111/1467-9280.00293>
- McManus, S. (2011). The impact of loneliness on sexual risk behaviors among African American women (Doctoral Dissertation). Retrieved from ProQuest Dissertations and Theses database. (UMI No. 3482411)
- Neto, F. (1989). Avaliação da solidão. *Psicologia Clínica*, 2, 65-79.
- Neto, F. & Barros, J. (1992). Solidão nos professores. *Revista Portuguesa de Pedagogia*, 1, 1-17.
- Nummela, O., Seppanen, M., & Uutela, A. (2011). The effect of loneliness and change in loneliness on self-rated health (SRH): A longitudinal study among aging people. *Archives of Gerontology and Geriatrics*, 53, 163-167. <http://dx.doi.org/10.1016/j.archger.2010.10.023>
- Pallant, J. (2007). *SPSS survival manual: A step by step guide to data analysis using SPSS*. New York, NY: Open University Press.
- Penninx, B., Tilburg, T., Kriegsman, D., Deeg, D., Boeke, A. J., & Eijk, J. (1997). Effects of social support and personal coping resources on mortality in older age: The Longitudinal Aging Study Amsterdam. *American Journal of Epidemiology*, 146(6), 510-519. <http://dx.doi.org/10.1093/oxfordjournals.aje.a009305>
- Pinquart, M. & Sorensen, S. (2001). Influences on loneliness in older adults: A meta-analysis. *Basic and Applied Social Psychology*, 23(4), 245-266. [http://dx.doi.org/10.1207/S15324834BASP2304\\_2](http://dx.doi.org/10.1207/S15324834BASP2304_2)
- Qualter, P., Brown, S. L., Munn, P., & Rotenberg, K. J. (2010). Childhood loneliness as a predictor of adolescent depressive symptoms: An 8-year longitudinal study. *European Child & Adolescent Psychiatry*, 19, 493-501. <http://dx.doi.org/10.1007/s00787-009-0059-y>
- Russell, D. W. (1996). UCLA loneliness scale (version 3): Reliability, validity, and factor structure. *Journal of Personality Assessment*, 66(1), 20-40. [http://dx.doi.org/10.1207/s15327752jpa6601\\_2](http://dx.doi.org/10.1207/s15327752jpa6601_2)
- Russell, D., Peplau, L. A., & Cutrona, C. E. (1980). The revised UCLA loneliness scale: Concurrent and discriminant validity evidence. *Journal of Personality and Social Psychology*, 39(3), 472-480. <http://dx.doi.org/10.1037/0022-3514.39.3.472>
- Seeman, T. (2000). Health promoting effects of friends and family on health outcomes in older adults. *American Journal of Health Promotion*, 14, 362-370. <http://dx.doi.org/10.4278/0890-1171-14.6.362>
- Segrin, C. & Domschke, T. (2011). Social support, loneliness, recuperative processes, and their direct and indirect effects on health. *Health Communication*, 26, 221-232. <http://dx.doi.org/10.1080/10410236.2010.546771>
- Segrin, C. & Passalacqua, S. A. (2010). Functions of loneliness, social support, health behaviors, and stress in association with poor health. *Health Communication*, 25, 312-322. <http://dx.doi.org/10.1080/10410231003773334>
- Skaalvik, E. M. & Skaalvik, S. (2011). Teacher job satisfaction and motivation to leave the teaching profession: Relations with school context, feeling of belonging, and emotional exhaustion. *Teaching and Teaching Education*, 27, 1029-1038. <http://dx.doi.org/10.1016/j.tate.2011.04.001>
- Sugisawa, H., Liang, J., & Liu, X. (1994). Social networks, social support, and mortality among older people in Japan. *Journal of Gerontology*, 49, S3-13. <http://dx.doi.org/10.1093/geronj/49.1.S3>
- Tait, M., Padgett, M. Y., & Baldwin, T. T. (1989). Job and life satisfaction: A reevaluation of the strength of the relationship and gender effects as a function of the date of the study. *Journal of Applied Psychology*, 74(3), 502-507. <http://dx.doi.org/10.1037/0021-9010.74.3.502>
- Wei, M., Russell, D. W., & Zakalik, R. A. (2005). Adult attachment, social self-efficacy, self-disclosure, loneliness, and subsequent depression for freshman college students: A longitudinal study. *Journal of Counseling Psychology*, 52(4), 602-614. <http://dx.doi.org/10.1037/0022-0167.52.4.602>
- Weiss, R. S. (1973). *Loneliness: The experience of emotional and social isolation*. Cambridge, MA: MIT Press.

**Autor:**

ROQUE DO CARMO AMORIM NETO – Assistant Professor of Practice, Davenport University.

**Endereço para correspondência:**

Roque do Carmo Amorim Neto  
College of Urban Education  
6191 Kraft Ave. – Grand Rapids, MI  
49319 – USA

Recebido em: 08.08.14

Aceito em: 17.05.15