

The Impact of National Board Certification on Burnout Levels in Educators

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Abstract: Teacher retention has become a major issue facing policy makers as our nation's school-age population continues to grow while the teaching workforce continues to decline because of attrition and an aging workforce. Common reasons cited by teachers for leaving the profession can also be linked to burnout. This study examined burnout levels in a specific subset of teachers—those who achieved certification by the National Board for Professional Teaching Standards (NBPTS). The potential benefits to teachers who pursue NBPTS certification include professional pride, recognition of outstanding teaching practice, new leadership roles and responsibilities, and higher salaries (Shapiro 1995). Some of these potential rewards seem to address a number of the factors that are related to the onset of burnout, and therefore may not only alleviate burnout but also impact retention rates. The study found that National Board Certified Teachers (NBCTs) demonstrated significantly lower levels of burnout in two of its three dimensions.

Keywords: National Board for Professional Teaching Standards, NBPTS certification, teacher burnout, teacher retention

Teacher attrition and retention has become a major issue as our nation's school-age population continues to grow while the teaching workforce does not. More than enough prospective teachers are graduating from teacher education programs; however, only 50 percent of these make it to the classroom, and of these, 46 percent leave within the first five years (National Council on Teacher Quality 2003). In addition, the veteran teaching workforce is declining as baby boomers, who make up more than 50 percent of America's educators,

are reaching retirement age (Carroll and Foster 2008). Schools and districts concentrating their efforts on replacing faculty have fewer resources to spend on improving the quality of instruction. Consequently, even in a declining economy the issue of teacher retention is a critical one for the field of education.

Common reasons cited by teachers for leaving the field include: the lack of teacher participation in decision making, minimal career advancement opportunities, low pay, the declining respect accorded to teachers by society, the attitudes of students and parents, inadequacy of administrative support, and the increasingly violent nature of the school environment (Anderson and Iwanicki 1984; Blase, Dederick, and Strathe 1986; Bryne 1998; Farber 1991; Hock 1988). Many of the reasons cited for leaving the profession are also associated with the onset of burnout, a construct that has been linked to attrition (Byrne 1999; Friedman and Farber 1992; Villa and Calvete 2001). Further, research shows that one of the consequences of burnout is attrition (Farber 1991).

Teacher burnout is an issue facing all schools, but perhaps one of even greater concern to teachers, administrators, and policy makers associated with our middle and high school settings. The Maslach-Leiter theoretical framework identifies workload as a contributing factor to the onset of burnout (Maslach 1999). Workload levels for educators become problematic in a quantitative sense because of factors such as class size, the amount of required paperwork, or the number of students assigned to the teacher (Starnaman and Miller 1992). In fact, a study of more than 1,000 teachers found that secondary teachers were more prone to burnout than their peers in elementary classrooms (Borthwick 1982). Class size and certainly the overall number of students are much higher in secondary classrooms, making burnout and its

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consequences a major concern for leaders in our middle and high schools across the country.

Burnout: Framing the Problem

Farber (1991), a leading researcher in burnout among educators, uses Maslach's social-psychological framework to formulate a conceptual definition of burnout as

A work-related syndrome that stems from an individual's perception of a significant discrepancy between effort (input) and reward (output), this perception being influenced by individual, organizational, and social factors. It occurs most often in those who work face to face with troubled or needy clients and is typically marked by withdrawal from and cynicism toward clients, and various psychological symptoms such as irritability, anxiety, sadness, and lowered self-esteem. (24)

Maslach and Pines (1977) operationalize burnout through three independent dimensions, which are interrelated to varying degrees. These dimensions, while distinct, are related empirically. It is possible for someone to demonstrate signs of burnout in one, two, or all three of these dimensions.

The first dimension of burnout is emotional exhaustion, or the feeling that one has been sapped of energy. Emotional exhaustion has been described as feeling emotionally fatigued or worn out (Maslach 1999).

Depersonalization, the second dimension, deals with an emotional distancing between the teacher and their students, as well as a hardening of emotions toward the students and their own work. Depersonalization has been described as being detached or uncaring, with frequently high levels of irritation with clients (students) and the work itself (Maslach 1999).

The final dimension, lack of personal accomplishment, is a decline in one's feelings of experienced success at work. These teachers see themselves as ineffective in helping students achieve, and are often unmotivated to fulfill their other duties in the school setting (Byrne 1999).

Burnout and the NBPTS Process

The National Board for Professional Teaching Standards (NBPTS) is an organization that developed a certification process to address assertions that the field of education did not have a set of codified knowledge, skills, and abilities that demonstrated mastery, such as one would see in other professions such as law or medicine (Baratz-Snowden, Shapiro, and Streeter 1993). The mission of NBPTS is in part to "establish high and rigorous standards for what accomplished teachers should know and be able to do" (National Board for Professional Teaching Standards 2007). The rigorous standards developed by NBPTS focus on the teacher's knowledge of the subject matter, their level of professional commitment and continued development, their ability to

reflect deeply on their own teaching practice, a demonstrated ability to manage and monitor student learning, and interaction with other educators as members of a larger learning community. Teachers compile a comprehensive portfolio to demonstrate their work as accomplished practitioners and take a rigorous examination.

Many of the benefits of successful completion of the NBPTS process identified by researchers address some of the factors that are related to burnout. Serafini (2002) acknowledges that terms such as "recognition and respect" are often used to explain the outcomes associated with attaining NBPTS certification. Shapiro (1995) suggests several possible advantages to being certified, including new leadership positions and responsibilities, a sense of professional pride and self-esteem, salary increases, recognition of accomplished teaching, reasons for remaining in the profession, and increased mobility between states. Other researchers mention increased public accountability, verifying the hard work of teachers, or peer recognition of excellence in the field as being important results of the process (Areglado 1999; Smagorinsky 1995). Additionally, a 2001 study by NBPTS indicated that the certification process has resulted in an average of 10 different leadership activities after the teachers became certified (National Board for Professional Teaching Standards 2001). The study also found that more than 90 percent of the National Board Certified Teachers (NBCTs) felt that becoming a NBCT enhanced their credibility in the education profession.

Studies by Friedman and Farber (1992) and Villa and Calvete (2001) found a significant negative relationship between burnout and professional self-concept, or how an individual views his or her competence as a professional. Therefore, a process that instills the confidence that one is an accomplished teacher may have the ability to influence perceived levels of burnout. In addition, teachers who have successfully completed the NBPTS process have stated that the process has renewed their professional vigor and provided them with a sense of professional satisfaction, the very type of professional renewal that many mid-career teachers in danger of burning out may need (National Board for Professional Teaching Standards 2007).

Research Methodology

Although no previous studies have directly examined the link between NBPTS certification and burnout, the literature reveals that the benefits associated with certification are similar to those factors that are thought to alleviate burnout. An empirical evaluation of the impact of NBPTS certification on burnout levels revealed a great deal about the possible relationship between certification and burnout and retention.

TABLE 1. Independent Samples *t* Tests

	NBCT Sample			Non-NBCT Sample		
	Mean	<i>SD</i>	<i>N</i>	Mean	<i>SD</i>	<i>N</i>
Emotional exhaustion	19.99**	9.92	248	23.85	11.26	220
Depersonalization	4.41**	.351	205	5.90	.390	190
Personal accomplishment	40.58**	435	243	38.83	475	218

p* < .05.*p* < .10.

Research Design

This study was based on the premise that the potential benefits of NBPTS certification might counteract the onset of burnout. The study was a comparative model in which the researcher looked for statistically significant differences in levels of perceived burnout in all three dimensions between a group of NBCTs and their noncertified peers, as measured by the Maslach Burnout Inventory-Educators Survey (MBI-ES). Several additional questions were added to the MBI-ES in order to identify demographic information and to address the factors that the Maslach-Leiter burnout model identified as being associated with the onset of burnout.

Research Sample

The instrument was distributed to two distinct groups. The first group was the population of NBCTs within the target school district (*n* = 255). The second group was a random sample of non-NBCTs who have never been a part of the NBPTS process (*n* = 221).

Data Analysis

A variety of statistical tools were utilized in the analysis of the data. Three separate *t* tests were conducted in order to compare the scores of the NBCTs to the non-NBCTs across each dimension of the burnout construct as identified by the MBI-ES. A *t* test is a statistical test used to compare the differences between the means, or averages, of two groups in order to see if there is a significant difference between them. The *t* test in this study compared the average burnout scores of the NBCT group to the non-NBCT group to see if there was a statistically significant difference between these means.

To make comparisons more reliable, statistical adjustments were made for individual teacher characteristics such as age, years of experience, subject area taught, and grade level. A second group of variables included workplace factors such as organizational characteristics, task qualities, and social support. These factors are identified in the Maslach-Leiter theoretical framework and were included in order to examine the strength of the in-

fluence of NBPTS certification as opposed to these other aspects of the theoretical model that are thought to be related to the onset of burnout. This helped to determine whether NBPTS certification was a significant predictor of burnout levels, providing a second statistical model to analyze the strength and direction of the relationship between certification and burnout.

Results

The purpose of the *t* tests in this study was to determine if there was a significant difference between the average levels of perceived burnout between NBCTs and non-NBCTs across the three dimensions of the burnout construct. As indicated in table 1, there was a significant difference in burnout levels across all three dimensions between NBCTs and their noncertified peers, with NBCTs demonstrating lower levels of perceived burnout in all three dimensions. Note that in the personal accomplishment dimension the mean, or average, burnout level was higher in the non-NBCT group; the personal accomplishment dimension is reverse ordered on the MBI-ES, meaning that higher values indicate lower burnout levels. Therefore, the NBCT group demonstrated lower levels of burnout in this dimension as well.

The negative relationship between NBPTS certification and burnout seems to be supported by an analysis of the ranges of experienced burnout in each dimension. The preponderance of NBCTs (42%) were in the low range of experienced burnout in the emotional exhaustion dimension (scores of between 0 and 17), while the largest segment of the control group (40%) was found in the high range (scores greater than 30). The personal accomplishment dimension found both the majority of the NBCT (80%) and control group (66%) in the low range of experienced burnout with scores greater than 40, although the control group still showed far more individuals in the moderate (21%) and high (13%) ranges than did the NBCT sample (moderate 12%; high 8%). The majority (84%) of the NBCT group reported

depersonalization levels in the low range of experienced burnout as well (scores of between 0 and 5).

Discussion

The NBCT group might be demonstrating significantly lower levels of experienced burnout in emotional exhaustion for a variety of reasons. For example, emotional exhaustion is typically associated with feelings of frustration. It is possible that these feelings may be alleviated by the benefits of attaining NBPTS certification, such as increased leadership opportunities, higher pay, and recognition by colleagues and the community. These proposed benefits of certification coincide with a number of the common teacher frustrations associated with burnout.

It is also possible that NBCTs may be displaying a greater degree of professional self-concept—or, confidence in their abilities—that assuages feelings of frustration, resulting in lower levels of perceived burnout in the emotional exhaustion dimension. The heightened degree of professional self-concept may be a result of the recognition of accomplishment by their peers and by the community as a whole that occurs when a teacher attains certification despite the rigors of the process.

Personal Accomplishment

NBPTS certification was also found to be a statistically significant predictor of the development of personal accomplishment dimension of burnout. Again, the higher average burnout score reported for the NBCT group actually indicates lower levels of burnout because this dimension was reverse ordered on the survey.

The reported benefits of achieving NBPTS certification may also help us understand the lower levels of burnout in the personal accomplishment dimension. The feeling of professional pride, or professional self-concept, is critically important to anyone in a helping services profession such as education. These individuals often enter their chosen field out of a desire to help and assist others. If they do not feel that they are doing a good job, or that their efforts are not making an impact, feelings of frustration, depression, and burnout may set in. The difficult nature of NBPTS certification seems to indicate that those who attain certification have demonstrated mastery within their chosen field that was recognized by a body of their peers. Such recognition might bolster an educator's confidence in their work in the classroom and enhance his or her professional self-concept, leading to lower levels of perceived burnout. Teachers who have confidence in their abilities are more likely to be retained in the classroom.

Depersonalization

The initial findings showed statistically significant differences between the NBCT and non-NBCT groups in depersonalization. However, the regression analysis

that was conducted to confirm that NBCT certification is related to the levels of burnout did not support the results of the *t* test for depersonalization (see the appendix for a full explanation of the multiple regression analysis). This indicates that while there does seem to be a difference between the average burnout scores in these groups based on the *t* tests, NBPTS certification itself was not a significant predictor of the onset of burnout. The results of this second statistical test seemed to be in opposition to the findings from the *t* test.

One possible explanation is that there are only a small number of questions on the MBI-ES that target depersonalization, which may make it more difficult to accurately identify. Another possibility is that depersonalization involves emotional distancing between the teacher and their students. For many educators this is a difficult thing to admit, even to oneself, as most individuals enter education out of the desire to make a difference in the lives of others. To admit that you feel emotionally distant from your students and that you “don’t really care what happens to some students” (MBI question 15) would likely be extremely upsetting to the teacher, and would certainly be looked at as unacceptable to others within the profession. As a result, respondents may have had difficulty responding to the questions regarding depersonalization.

Despite the demonstrated statistical difference between the means of the NBCT and non-NBCT groups on the depersonalization scale of the MBI-ES, the regression analysis demonstrates that the relationship of NBPTS certification to depersonalization is unclear. While NBPTS certification does appear to be a possible factor, when other explanatory variables from the theoretical framework enter the model, its influence appears confounded. Further research is necessary in order to explore the impact of NBPTS certification on the depersonalization dimension of burnout.

Secondary Findings

The survey instrument also provided the researcher with secondary findings that relate to the impact of NBPTS certification on educators (see table 2). A series of questions was included to evaluate how the NBPTS process changed educator perceptions in a few key areas. These questions, combined with the statistical analysis of the burnout instrument, can help provide a clearer depiction of the influence of NBPTS certification on burnout and, therefore, retention. The analysis of these questions is based on reviewing the frequencies of responses in each category.

Farber (1991) noted that the lack of respect accorded to educators by society is one of the leading factors in the development of burnout. One of the questions asked NBCTs was whether they felt that their NBCT status had provided them with additional rewards and recognition. A majority (75.8%) agreed or strongly agreed that they

TABLE 2. NBCT Additional Questions

	Strongly Disagree (%)	Disagree (%)	Undecided (%)	Agree (%)	Strongly Agree (%)
Becoming an NBCT has made a difference in my commitment to my students.	5.8	14.7	2.7	43.4	33.3
Becoming an NBCT has made a difference in my commitment to my school.	7	18.8	11.7	35.2	27
Becoming an NBCT has renewed my interest in teaching.	1.3	15.6	7.8	39.5	32.8
I feel that my status as an NBCT has provided me with additional rewards and recognition.	4.7	11.3	8.2	41	34.8
Recognition of my accomplishments in the classroom through the NBPTS process has improved my outlook on teaching.	5.1	12.5	11.7	44.5	26.2
I am still in the field of education because of my participation in the NBPTS process.	16	27.3	11.7	29.3	15.2

did in fact feel that they had received additional recognition. If Farber is correct, then it would seem that the NBPTS process may in some way alleviate the lack of respect that many teachers often feel, and may therefore reduce burnout levels.

In addition, these questions indicated that the NBPTS process increased the educator's commitment to their school (62.2%) and their students (76.7%). Increased commitment to the school or the students may lead to a reduced chance that the teacher feels emotionally exhausted. This heightened sense of commitment to students and the school also is relevant to the energy expansion model, which suggests that added roles and responsibilities may actually expand the energy of the individual rather than become added stressors (Marks 1977). Marks states that the expansion of energy stems from commitment, which may come from loyalty to significant others involved in the role, such as students or the school community. If this heightened sense of commitment can serve as a way to expand energy for an educator, it may be that this expansion will reduce stressors that may lead to burnout.

Recommendations for Practice

The correlational findings of this study indicate that the NBPTS certification process has a negative relationship with the onset of burnout in at least two dimensions for the NBCTs in this sample. It is difficult to establish clear and direct causal relationships between the NBPTS process and the reduction of burnout; however, the data from this study—along with research cited in the literature—suggest that school leaders might find the fol-

lowing practices positive actions toward enhancing professional development and reducing some of the factors that lead to burnout.

- *Encourage teachers to pursue NBPTS certification.* Assist them in finding mentors within your faculty to help them through the process.
- *Encourage teachers to pursue graduate degrees.* Teachers who pursue additional coursework toward advanced degrees will have the opportunity not only to improve their teaching practice but also to stretch themselves personally and professionally. This may offer a renewal of professional vigor similar to what the NBPTS process provides, and may also be accompanied by increased recognition and salary enhancements that could improve professional self-concept.
- *Develop a culture of reflective practice.* Taking time to reflect regularly, as teachers do during the NBPTS process, allows them to think about their strengths and target areas in need of improvement, boosting their sense of professional accomplishment.
- *Engage in shared decision making with your faculty.* Byrne (1999) noted that the lack of teacher participation in decision making is a significant predictor of burnout. Consulting with teachers about key decisions that impact their classrooms and the school aids in the development of a learning community is one of the core propositions of NBPTS.
- *Utilize the expertise of your veteran teachers by encouraging them to be teacher leaders.* A 2001 study by NBPTS indicated that the certification process resulted in an

average of 10 different leadership activities for NBCTs. Teacher leaders take on a variety of roles, from mentor to department chair, which improve the quality of instruction for all students. A principal who cultivates teacher leadership demonstrates confidence in the ability of the faculty, which improves their sense of professional pride.

- *Invest in networking opportunities for teachers, such as book groups or professional learning communities.* Teachers have little time during their work day to interact with other adults, a fact that often leads to stress and frustration. The NBPTS process encourages teachers to work together as members of learning communities; perhaps opportunities to develop a cohort improved teachers' sense of social support from their peers—a factor noted in the Maslach-Leiter theoretical framework as negatively associated with burnout (Maslach 1999). A structured opportunity to meet with their peers and discuss salient issues gives teachers an opportunity to grow as professionals, improve their teaching practice, and reduce stress—all of which may reduce the likelihood of burnout.

Summary and Conclusions

This study demonstrated a negative relationship between two dimensions of burnout and NBPTS certification. Because NBCTs in this study did in fact exhibit lower levels of burnout, enhancing some of the benefits of the NBPTS process—such as increased pay, new leadership opportunities, and recognition by colleagues and the community—through support of NBPTS certification or through other similar means, such as advanced degrees, may also be effective in alleviating burnout.

One goal of this study was to explore the relationship between NBPTS certification and burnout in order to attempt to provide policy makers with concrete data to use in evaluating their current support of the NBPTS certification program. Increasingly, policy makers and the public at large want to be able to quantify the impact of the dollars they spend on educational reform efforts. In finding a negative relationship between two burnout dimensions and NBPTS certification, there are at least preliminary indications that support of this program may help policy makers and administrators deal with the retention issues that they are currently facing. Additionally, any program that assists in the reduction of teacher turnover allows schools and districts to concentrate precious resources on improving instruction rather than recruiting and training new teachers.

Additional research would be beneficial to fully explore the relationship between the pursuit of professional development experiences, such as NBPTS certification, and burnout. A replication of this study with teachers pursuing advanced degrees or other forms of professional certification might help us understand how

to stem the tide of burnout. A study attempting to understand the psychology of achievement in educators could also help us understand the relationship between an educator's sense of professional self-concept and their perceived levels of burnout.

Overall, this study is exciting news for policy makers, teacher leaders, community members, and other supporters of the NBPTS process because it indicates that the NBPTS process may be able to reduce burnout levels. While the relationships between burnout and NBPTS certification found in this study do not necessarily demonstrate a causal relationship, these findings show that encouraging both professional development experiences and opportunities for reflection such as the NBPTS process provides might address the rising tide of burnout in our schools. If professional development experiences such as NBPTS certification can potentially alleviate burnout, it is possible that it will also increase retention rates in teachers. Alleviating burnout will also improve the quality of education provided to students by reenergizing teachers and keeping them focused on why they entered the profession—teaching children.

REFERENCES

- Anderson, M. B., and E. F. Iwanicki. 1984. Teacher motivation and its relationship to burnout. *Educational Administration Quarterly* 20(2): 94–132.
- Areglado, N. 1999. I became convinced: How a certification program revitalized an educator. *Journal of Staff Development* 20(1): 35–37.
- Baratz-Snowden, J., B. Shapiro, and K. Streeter. 1993. The National Board for Professional Teaching Standards: Making a profession. *Middle School Journal* 25(2): 68–71.
- Blase, J. J., C. Dederick, and M. Strathe. 1986. Leadership behavior of school principals in relation to teacher stress, satisfaction, and performance. *Journal of Humanistic Education and Development* 24(4): 159–69.
- Borthwick, P., J. Thornell, and F. Wilkinson. 1982. Teacher burnout: A study of professional and personal variables. *Proceedings of the Annual Meeting of the American Association for Teacher Education*. Houston, TX: ERIC Document Reproduction Service.
- Bryne, J. J. 1998. Teacher as hunger artist: Burnout: Its causes, effects, and remedies. *Contemporary Education* 69(2): 86–92.
- Byrne, B. M. 1999. The nomological network of teacher burnout: A literature review and empirically validated model. In *Understanding and preventing teacher burnout*, ed. R. Vandenberg and A. M. Huberman, 15–37. Cambridge: Cambridge University Press.
- Carroll, Thomas G., and Elizabeth Foster. 2008. *Learning teams: Creating what's next*. Washington, DC: National Commission on Teaching and America's Future.
- Farber, B. A. 1991. *Crisis in education*. San Francisco: Jossey-Bass.
- Friedman, I. A., and B. A. Farber. 1992. Professional self-concept as a predictor of teacher burnout. *Journal of Educational Research* 86(1): 28–35.
- Hock, R. R. 1988. Professional burnout among public school teachers. *Public Personnel Management* 17(2): 167–89.
- Marks, S. R. 1977. Multiple roles and role strain: Some notes on human energy, time, and commitment. *American Sociological Review* 42(6): 921–36.
- Maslach, C. 1999. Progress in understanding teacher burnout. In *Understanding and preventing teacher burnout*, ed. R. Vandenberg and A. M. Huberman, 211–22. Cambridge: Cambridge University Press.
- Maslach, C., and A. Pines. 1977. The burnout syndrome in the daycare setting. *Child Care Quarterly* 6(2): 110–13.
- National Board for Professional Teaching Standards. 2001. Impact of National Board Certification. *National Board for Professional Teaching*

- Standards*. <http://www.nbpts.org/pdf/ResRpt.pdf> (accessed February 25, 2004).
- National Board for Professional Teaching Standards. 2007. *About NBPTS*. <http://www.nbpts.org/about.us> (accessed November 22, 2007).
- National Council on Teacher Quality. 2003. SREB focus on retention. *Teacher Quality Bulletin* (January 31).
- Serafini, F. 2002. Possibilities and challenges: The National Board for Professional Teaching Standards. *Journal of Teacher Education* 53(4): 316-28.
- Shapiro, B. 1995. A boost for teachers? *Vocational Education Journal* 68: 28-29.
- Smagorinsky, P. 1995. Teacher certification as personal and professional development. *Voices From the Middle* 2(4): 21-26.
- Starnaman, S. M., and K. I. Miller. 1992. A test of a causal model of communication and burnout in the teaching profession. *Communication Education* 41: 40-53.
- Villa, A., and E. Calvete. 2001. Development of the Teacher Self-Concept Evaluation Scale and its relation to burnout. *Studies in Educational Evaluation* 27: 239-55.

Appendix

Multiple Regression Analysis of the Overall Model

In addition to the independent sample *t* tests, a multiple regression analysis was conducted. Multiple regression is a statistical technique that is used to predict the value of a variable based on the behavior of one or more independent variables. For example, a multiple regression model could attempt to predict grades in a course based on variables such as time spent studying and grades in previous courses.

This regression model was completed in order to look at the impact of NBPTS certification as a predictor of burnout levels in each dimension. This regression analysis also included components of the Maslach-Leiter theoretical model as additional independent variables that are considered to be predictors of burnout. If NBPTS certification was found to be a statistically significant variable in these multiple regression analyses, just as elements of the Maslach-Leiter models were, it would help confirm the findings of statistical significance in the independent samples *t* tests by demonstrating that NBPTS certification is indeed a significant predictor of burnout levels.

TABLE 3. Examination of NBPTS Certification as an Independent Variable

	Emotional Exhaustion	Depersonalization	Personal Accomplishment
Beta	-.111	-.069	.092
Significance	.019 ^a	.201	.072 ^b
N	248	205	243

^aDifference is significant at the .05 level.

^bDifference is significant at the .10 level.

Overall, the results of the *t* tests were confirmed by the regression analysis for both emotional exhaustion and personal accomplishment dimensions. As table 3 shows, the NBPTS certification status of a teacher was found to have a statistically significant negative relationship on emotional exhaustion ($p = .019$); in other words, someone who has achieved NBPTS certification is less likely to show signs of burnout in the emotional exhaustion dimension.

NBPTS certification was also a significant predictor of burnout in the personal accomplishment dimension. In this case the beta value reported in table 3 is positive because the personal accomplishment dimension is reverse ordered, with higher scores on the scale indicating lower ranges of perceived burnout. As with emotional exhaustion, this shows that NBPTS certification is negatively associated with the onset of burnout.

The multiple regression analysis of depersonalization was not statistically significant. In other words, NBPTS certification is not a significant predictor of depersonalization. This conflicts with the independent samples *t* tests. The fact that these two statistical tests showed conflicting results demonstrates that more research may be needed to further examine the relationship between a professional development experience such as NBPTS certification and its resulting impact on depersonalization.

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