

The Impostor Phenomenon

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The Impostor Phenomenon was identified from clinical observations during therapeutic sessions with high achieving women by Dr. Pauline Clance. Despite objective evidence of success, these women had a pervasive psychological experience believing that they were intellectual frauds and feared being recognised as impostors. They suffered from anxiety, fear of failure and dissatisfaction with life. This article reviews definitions and characteristics of trait Impostorism, some antecedents, such as personality and family achievement environment and psychological distress as a consequence of Impostorism.

Keywords: impostorism, impostor phenomenon, impostor fears, perfectionism, family environment, family achievement values, psychological distress

The “Impostor Phenomenon” was first described by Dr Pauline Clance, from her observations in a clinical setting (Clance, 1985). Individuals with the Impostor Phenomenon experience intense feelings that their achievements are undeserved and worry that they are likely to be exposed as a fraud. This causes distress and maladaptive behaviour (e.g., Clance, 1985; Harvey & Katz, 1985; Kolligian & Sternberg, 1991; Sonnak & Towell, 2001).

Initially, the Impostor Phenomenon was believed to only affect professional women (Clance & Imes 1978). However, feeling like an impostor seems to be widely experienced. Subsequent research has shown Impostorism affects a wide range of people. For example, Impostorism has been observed to affect both genders (e.g., Bussotti, 1990; Langford, 1990; Topping, 1983), and to occur in people with different occupations such as college students (Bussotti, 1990; Harvey, 1981; Langford, 1990), academics (Topping, 1983), medical students (Henning et al., 1998), marketing managers (Fried-Buchalter, 1992), and physician assistants (Mattie, Gietzen, Davis & Prata, 2008; Prata & Gietzen, 2007). Chae, Piedmont, Estadt, and Wicks (1995) and Clance, Dingman, Reviere, and Stober (1995) found Impostorism occurred across different cultures. It is estimated that 70% of people will experience at least one episode of this Impostor Phenomenon in their lives (Gravois, 2007). Harvey (1981) asserted that anyone can view themselves as an impostor if they fail to internalise their success and this experience is not limited to people who are highly successful.

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Most subsequent research in this area has examined the Impostor Phenomenon as a personality trait or disposition, with samples taken from professionals and students (e.g., Sonnak & Towell, 2001; Topping, 1983). The term Impostor Phenomenon was originally derived from clinical observation of female clients in therapeutic sessions, and most of the preliminary work in this area was based on clinical populations. However, most subsequent research was based on a non-clinical population with a full range of self-perceived intellectual fraudulence, from absent to severe levels. To avoid confusion, it seems more appropriate to reserve the term Impostor Phenomenon for the small subgroup of people who experience a clinical level of self-perceived intellectual fraudulence. The terms Impostorism and impostor fears (Thompson, Davis, & Davidson, 1998; Thompson, Foreman, & Martin, 2000) are used in this article to describe the psychological experience of individuals who perceive themselves as intellectual frauds and also fear being exposed as impostors. The term Impostor when capitalised in this article refers to a person who experiences impostor fears.

Researchers have identified a number of factors contributing to the emergence of Impostorism, including perfectionism (Clance, 1985; Thompson et al., 1998; Thompson et al., 2000; Ferrari & Thompson, 2006) and family environment (e.g., Bussotti, 1990; Clance, 1985; King & Cooley, 1995; Sonnak & Towell, 2001). Links between Impostorism and its consequence, psychological distress, such as anxiety and depression have been well established (e.g., Chrisman, Pieper, Clance, Holland, & Glickauf-Hughes, 1995; Henning, Ey, & Shaw, 1998; Topping, 1983). Most Impostors are able to fulfill their academic or work requirements despite their self-perceived fraudulence. It is possible that subclinical symptoms resulting from impostor fears can, if prolonged, lead to clinical levels of depression or anxiety. A greater understanding of the factors contributing to Impostorism and its consequences may lead to effective interventions that reduce psychological distress.

The aim of this article is to review definitions and characteristics of trait Impostorism, some antecedents, such as personality and family achievement environment, and psychological distress as a consequence of Impostorism.

Definition of the Imposter Phenomenon by Clance

The definition of the Impostor Phenomenon from Clance (1985) refers to an “internal experience of intellectual phoniness” (Matthews & Clance, 1985, p. 71) in individuals who are highly successful but unable to

internalise their success (Bernard, Dollinger, & Ramaniah, 2002; Clance & Imes, 1978). Clance believed that the Impostor Phenomenon is not “a pathological disease that is inherently self-damaging or self-destructive” (Clance, 1985, p. 23), rather, it interferes with the psychological well-being of a person. A high level of Impostor Phenomenon limits the acceptance of success as an outcome of one’s own ability and influences feelings of self-doubt and anxiety. Clance (1985) suggested that the Impostor Phenomenon is marked by six potential characteristics: (1) The Impostor Cycle, (2) The need to be special or to be the very best, (3) Superman/Superwoman aspects; (4) Fear of failure, (5) Denial of competence and Discounting praise, and (6) Fear and guilt about success. However, the existence of these characteristics in Impostors is varied. Not every Impostor has all these characteristics but to consider someone as an Impostor, a minimum of two characteristics should be found. These six characteristics are explained in the following section.

1. The Impostor Cycle.

The Impostor Cycle is illustrated in Figure 1.

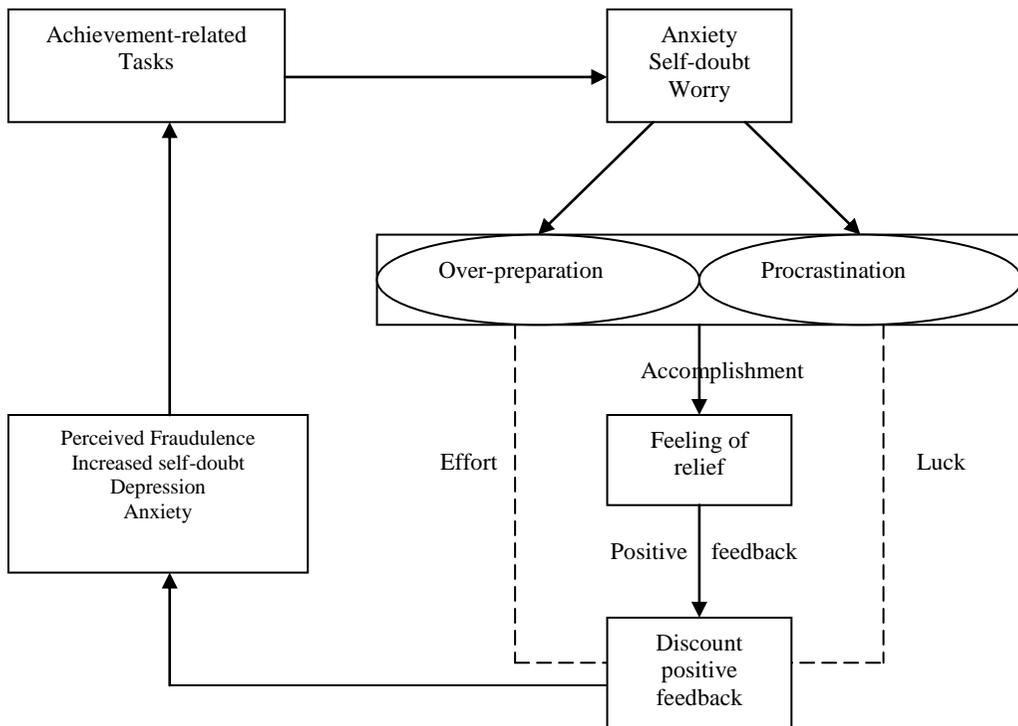


Figure 1. Diagram illustrating the Impostor Cycle based on Clance (1985).
The cycle begins with the assignment of achievement related tasks.

The Impostor Cycle is one of the most important characteristics of the Impostor Phenomenon (Clance, 1985). The Impostor Cycle starts when an achievement-related task, such as school work or vocational task is assigned. Individuals with trait impostor fears are bothered by anxiety-related symptoms (e.g., Chrisman et al., 1995; Clance & Imes, 1978; Thompson et al., 2000). They may react to this anxiety either by extreme over-preparation, or initial procrastination followed by frenzied preparation (Thompson et al., 2000). Following task completion, there is an initial sense of relief and accomplishment, but those good feelings do not persist. Although Impostors may receive positive feedback about their successful accomplishment of the task, Impostors deny their success is related to their own ability. They reject positive messages about their personal contribution because those messages are incongruent with their perception of their mechanics of success (Casselmann, 1991). If Impostors have over-prepared, they believe that their success is due to hard work. Those who initially procrastinate, likely attribute their success to luck. Impostors also hold fixed beliefs that accomplishment through hard work does not reflect true or real ability (Clance, 1985). The combination of Impostors' beliefs about the mechanics of success and their perceptions of the key contribution of effort or luck influencing their success on a particular task reinforces the Impostor Cycle. When facing a new achievement-related task, self-doubt creates a high level of anxiety, and the Impostor Cycle is repeated.

Overworking is one observed and self-perceived pattern of the Impostor Cycle. Overworking becomes problematic when the amount of effort and energy invested in a task exceeds that for producing work of reasonable quality (Clance, 1985), and interferes with other priorities. Even though individuals with impostor fears recognise this overworking pattern, they often find it difficult to break this cycle. Clance (1985) observed that Impostors often have strong beliefs that they will become a failure if they do not follow the same working style.

Another complication is that repetition of success reinforces the feeling of fraudulence instead of weakening the links of the Impostor Cycle (Clance & Imes, 1978). Clance (1985) has suggested that Impostors have high expectation for their goals and have their own concept of ideal success. Impostors disregard their success if there is any gap between their actual performance and their ideal standard, which contributes to discounting of positive feedback. Since Impostors are high achievers who also “make unreasonably low assessments of their performance” (Want & Kleitman, 2006, p. 969), the repetitions of success emphasise the discrepancy between their actual and ideal standards of success as well as strengthening the feeling of being a fraud or an impostor.

2. The need to be special, to be the very best.

Impostors often secretly harbour the need to be the very best compared with their peers. Clance (1985) observed that Impostors have often been in the top of the class throughout their school years. However, in a larger setting, such as in a university, Impostors realise that there are many exceptional people and their own talents and abilities are not atypical. As a result, Impostors often dismiss their own talents and conclude that they are stupid when they are not the very best.

3. Superwoman/Superman aspects.

Clance (1985) asserted that “the need to be the very best” and “the superman/superwomen aspects” are inter-related. This characteristic of the Impostor Phenomenon refers to a perfectionistic tendency. Impostors expect to do everything flawlessly in every aspect of their lives. They set high and almost impossible standards as their goals and for their self-evaluation (Imes & Clance, 1984). Impostors often feel overwhelmed, disappointed, and overgeneralise themselves as failures when they are unable to fulfill their perfectionistic goals (Clance, 1985).

4. Fear of failure.

Impostors experience high levels of anxiety when exposed to an achievement-related task because they fear possible failure. For Impostors making mistakes and not performing at the highest standard precipitates feelings of shame and humiliation (Clance, 1985). Clance and O’Toole (1988) asserted that fear of failure is an underlying motive of most Impostors. Therefore, to reduce the risk of possible failure, Impostors tend to overwork to be certain that they will not fail (Clance, 1985).

5. Denial of competence and discounting praise.

Impostors have difficulty internalising their success and accepting praise as valid. Impostors attribute their success to external factors to a greater degree than non-Impostors (Chae et al., 1995; Harvey, 1981; Thompson et al., 1998; Topping & Kimmel, 1985). They not only discount positive feedback and objective evidence of success but also focus on evidence or develop arguments to prove that they do not deserve praise or credit for particular achievements (Clance, 1985). The Impostor Phenomenon is not a display of false modesty.

6. Fear and guilt about success.

Fear and guilt about success in Impostors is related to the negative consequences of their success. For example, when their successes are unusual in their family or their peers, Impostors often feel less connected and more distant. They are overwhelmed by guilt about being different (Clance, 1985) and worry about being rejected by others.

Apart from having a fear of atypical success leading to rejection, Impostors are also frightened that their success may lead to higher demands and greater expectations from people around them. Impostors feel uncertain about their ability to maintain their current level of performance and are reluctant to accept additional responsibility (Clance, 1985). They worry that higher demands or expectations may reveal their intellectual phoniness.

Definition of Impostorism by Harvey and Katz

Harvey and Katz (1985, as cited in Hellman & Caselman, 2004) use the term the Impostor Phenomenon to describe “a psychological pattern rooted in intense, concealed feelings of fraudulence when faced with achievement tasks” (Hellman & Caselman, 2004, p. 161). Harvey and Katz (1985) proposed that the Impostor Phenomenon consisted of 3 core factors: (1) the belief that he/she has fooled other people, (2) fear of being exposed as an impostor, and (3) inability to attribute own achievement to internal qualities such as ability, intelligence, or skills. According to Harvey and Katz’s (1985) definition, all three criteria must be met in order to consider someone an Impostor. This definition is more specific than Clance’s conceptualisation (1985).

Definition of Impostorism as Perceived Fraudulence

Kolligian and Sternberg (1991) suggested using the term Perceived Fraudulence to describe the Impostor Phenomenon introduced by Clance (1985) to avoid confusion between those who experienced the Impostor Phenomenon as an unjustified fear and the normal meaning of ‘impostor’ as a fraud. In addition, Kolligian and Sternberg (1991) asserted that Impostorism is a self-perception of fraudulence, which is a combination of cognitive and affective components, rather than an emotional disorder (Kolligan & Sternberg, 1991; Leary, Patton, Orlando, & Funk, 2000). The term Impostor Phenomenon could be easily misinterpreted because the term suggests that “the experience should be viewed as a pervasive mental illness or categorical personality disorder” (Kolligian & Sternberg, 1991, p. 308).

The concepts of the Impostor Phenomenon by Clance (1985) and Perceived Fraudulence by Kolligian and Sternberg (1991) share a similar constellation of factors such as fraudulent ideation, self-criticism, achievement pressures, and negative emotions. However, the concept of Perceived Fraudulence further emphasises a vigilant practice of impression management and self-monitoring in Impostors, who are concerned about their self-worth and social image (Kolligian & Sternberg, 1991).

Definition of Neurotic Imposture

More recently, Kets de Vries (2005) introduced a broader concept to include the Impostor Phenomenon. Kets de Vries proposed that imposture in a wider sense could be recognised as a normal aspect of social behaviour, in that people are expected to conceal their weaknesses within socially accepted limits. Their imposture is a part of a continuum with two extremes outside accepted limits. One extreme is designated real imposture, while the other is Neurotic Imposture (Kets de Vries, 2005).

From Kets de Vries's (2005) definition, anyone can be an impostor when they display a façade or present a public self that is different from their private self, in order to meet social expectations. Imposture becomes problematic when a person behaves outside acceptable limits. Real impostors take on a false identity to deceive others; they are presumably satisfied if they succeed in creating a false positive impression, but the degree of misrepresentation would be considered unacceptable if detected, and they may have a realistic fear of being exposed. For Neurotic Impostors, the problem lies with their subjective experience of fraudulence and not with realistic social unacceptability; the self-perceived impostor feels inauthentic regardless of the views of objective observers. The characteristics of Neurotic Imposture from Kets de Vries' concept include fear of failure or success, perfectionism, procrastination, and a workaholic personality, all of which correspond to the characteristics of Impostorism as described by Clance (1985).

In summary, despite some differences in definitions, Impostorism refers to a pervasive psychological experience of a person believing that they are a self-perceived intellectual fraud and fearing they may be recognised as an impostor.

Antecedents of Impostorism

Family environment, family dynamics, and parental rearing styles can affect the achievement values and achievement behavior of a child and influence how the child learns to deal with success and failure (Thompson,

2004). Predisposing personality traits, such as neuroticism and perfectionism, are assumed to be other factors which contribute to the emergence of Impostorism. These predisposing personality traits are assumed to be stable and may partly contribute to the formation of the cognitive schema of a person.

Family dynamics and Impostorism

According to clinical observations, impostor fears are derived from certain family situations in early childhood and are then reinforced through socialisation for achievement in adolescence and adulthood. Clance (1985) suggested four general characteristics of the family that contribute to the perpetuation of the Impostor Phenomenon from many of her patients' developmental histories: (1) the perception of Impostors that their talents are atypical compared with family members, (2) family messages that convey the importance of intellectual abilities and that success requires little effort, (3) discrepancy between feedback about Impostors' abilities and success derived from family and other sources, and (4) lack of positive reinforcement.

Bussotti (1990) investigated the family background of Impostors, focused on the family environment, the relationship between family members, and family structure, using the Family Environment Scale (Moos & Moos, 1986). With a sample of 302 students, Bussotti found that CIPS scores were negatively related to the Family Cohesion and Expressiveness subscales and positively correlated with the Family Conflict and Family Control subscales of the Family Environment Scale. These four subscales: Family Cohesion, Family Expressiveness, Family Conflict, and Family Control, accounted for 12% of the variance in the CIPS scores (Bussotti, 1990). This suggested that impostors were likely to perceive that there was a lack of support, lack of communication, and lack of appropriate emotional expression among family members. High levels of family control, expression of anger and family conflict were also present. However, the total contribution of family environment in this study is modest.

Sonnak and Towell (2001) examined the relationship between parental rearing styles and the CIPS in 117 undergraduate students. In this study, parental rearing styles were measured by the Parental Bonding Instrument (PBI; Parker, Tupling & Brown, 1979). Sonnak and Towell found that perceived parental control/overprotection was weakly correlated with impostor fears, $r = .27$, while perceived parental care was inversely related, $r = -.41$. Sonnak and Towell (2001) concluded that parental overprotection was a factor in development of impostor fears.

Want and Kleitman (2006) replicated the study of Sonnak and Towell (2001) and explored Impostors' perception of their mother's and father's rearing styles in 115 participants from a wide range of occupations such as doctors, solicitors, business executives, small business owners, and graduate students. Want and Kleitman found that impostor fears were weakly correlated with high levels of control and domination by both mothers, $r = .25$, and fathers, $r = .34$. A moderate inverse relationship was found between impostor fears and the parental care of fathers, $r = -.30$. However, there was no significant relationship between impostor fears and the parental care of mothers, $r = -.10$. Path analysis suggested that the rearing style of the father (care and overprotection) significantly predicted impostor fears, while the rearing style of the mother had an indirect effect on impostor fears via its relationship with the rearing styles of the father. The results were consistent with Sonnak and Towell's (2001) finding that impostor fears were best predicted by parental overprotection, although the relationship is not strong. Want and Kleitman's (2006) study additionally identified the role of overprotecting fathers in the aetiology of impostor fears.

Family messages about the importance of being naturally intelligent are also assumed to influence the ambitions and expectations of Impostors from early childhood. Impostors have a strong need to please (Bussotti, 1990), which may cause children to alter their behaviour in order to prevent the loss of affection from their parents (Clance, 1985). Impostors tend to conform to the standards of the family in order to gain positive feedback and verify their sense of self-worth. These modified behaviours may in turn conflict with the needs and capabilities of the child.

Without psychological support or family approval of the child's accomplishments, the child may feel that his or her achievements are dismissed, unimpressive, or unimportant. Feelings of shame, humiliation, and inauthenticity are often experienced with a lack of consistent positive reinforcement (Clance, 1985; Clance et al., 1995; Clance & O'Toole, 1988).

King and Cooley (1995) studied the relationship between family achievement orientation and the development of impostor fears in 127 undergraduate students. A weak positive relationship between impostor fears and family orientation that emphasised achievement value and competition was reported, $r = .21$. This provides little support for Clance's (1985) observation regarding family messages about the importance of achievement. However, family messages that emphasise success with less effort have not been investigated.

Although a weak positive link between family achievement orientation and impostor fears has been reported, King and Cooley (1995) observed that not every child from a family that has strong achievement values becomes an impostor. King and Cooley suggested that the way in which families deliver messages about their achievement values may play an important role in contributing to the development of impostor fears and that individual differences between the children, such as personality, may also be important.

Clance (1985) asserted that it is difficult for children to internalise their success when their performance is inconsistently reinforced or invalidated by parents and/or other family members. For instance, the child's family may invalidate the success of the child by sending direct or indirect message that the child is a sensitive or socially adept person (Clance & Imes, 1978). Although the child may want to validate his or her own intellectual competence, the child may come to doubt this competence this if achievements are attributed to sensitivity to a teacher's expectations or good social skills. Mixed messages about achievement may influence the emergence of impostor fears.

In a study of 425 undergraduate students, Dinnel, Hopkins, and Thompson (2002) reported a moderate correlation between confusing messages from the family with respect to academic achievement and impostor fears, $r = .33$. Dinnel et al. (2002) treated impostor fears as a factor component of failure avoidant behavior, while mixed messages about achievement from family were treated as a factor component of family environment in a broader model.

In summary, studies suggested that family background could contribute to the emergence of Impostorism. However, from the review above, correlations between family background variables and Impostorism were not strong. The strongest relationship was perceived a lack of parental care in Sonnak and Towell's (2001) study. Want and Kleitman (2006) suggested this perception may be specific to perceived paternal care but this correlation was slightly weaker than the one reported in Sonnak and Towell's study (2001). A weak positive relationship also found between Impostorism and perceived parental control/overprotection and this relationship may also be stronger for the perception of control/overprotection from the father. In addition, confusing messages about achievement from the family appeared more strongly related to Impostorism than family achievement values that emphasised achievement via competition.

Personality Factors and Impostorism

A number of studies have examined how personality correlates with impostor fears to validate specific facets of impostor fears and to distinguish impostor fears from other psychological phenomenon. Topping (1983) found a moderate positive correlation between impostor fears and trait anxiety, $r = .42$, in a sample of 285 university staff, which suggested that generalised anxiety was an important component of impostor fears. Topping also found that Impostors had a higher level of achievement motivation than non-Impostors. Topping (1983) concluded that in order to eradicate their own personal sense of self-doubt, Impostors are highly motivated to prove they are capable, competent, and worthwhile.

According to Chae et al. (1995), Casselman (1991) examined the relationship between impostor fears and the Eysenck Personality Inventory in medical students and found neuroticism was a significant predictor of impostor fears. This finding was supported by the study of Chae et al., using the NEO-Personality Inventory-Revised (NEO-PI-R; Costa & McCrae, 1992). In a sample of 654 Koreans (319 males and 334 females), Chae et al. found the Neuroticism facet of the NEO-PI-R was strongly correlated with impostor fears in both males, $r = .60$, and females, $r = .63$. The relationships between impostor fears and the anxiety and depression subscales in the Neuroticism domain were similar, both close to $r = .53$ for both males and females. A weak negative relationship was also found between impostor fears and Conscientiousness scale of the NEO-PI-R in both males, $r = -.36$, and females, $r = -.29$. Chae et al. concluded that lower conscientiousness reflected lower self-discipline in Impostors' pattern of work. When presented with work tasks, Impostors initially procrastinate and then go into a frenzy of activity in order to complete the tasks. A subsequent study by Bernard et al. (2002) in a sample of 190 college student, confirmed the findings of Chae et al. (1995) that personality profiles of Impostors are higher in Neuroticism, $r = .49$, and lower in Conscientiousness, $r = -.49$.

The association of Impostorism with neuroticism is consistent with the negative affect and dissatisfaction in life, with which Impostors present. However, an association of lower Conscientiousness with perfectionism in Impostors appears less expected. Hill, McIntire, and Bacharach (1997) confirmed forms of perfectionism were positively associated with Conscientiousness in a sample of undergraduate students, though Enn and Cox (2002) found a much weaker relationship in a clinical sample.

If the association of perfectionism and lower conscientiousness in Impostors is confirmed, it may be a reflection of Impostors' work habits, as Chae et al. (1995) suggest, or because individuals with perfectionism require a higher level of organisational skills and good working habits than they attain in order to achieve their perfectionistic standards, or it may reflect Impostors' tendency to self-deprecation.

Perfectionism is a trait that is believed to have a marked impact on the development and maintenance of impostor fears. Kets de Vries (2005) asserted that perfectionism is the underlying cause of Neurotic Imposture. Impostors set "excessively high, unrealistic goals and then experience self-defeating thoughts and behaviors when they can't reach those goals" (Kets de Vries, 2005, p. 112). Within the clinical literature on the Impostor Phenomenon, perfectionism is repeatedly discussed as a dominant theme, with Impostors setting extremely high and often unrealistic standards for their self-evaluation (Imes & Clance, 1984). The need to be the best, the need to be able to do everything flawlessly and their tendency to overwork are the characteristics of Impostors that are consistent with the pursuit of perfection. Impostors' tendency to discount positive feedback and maintain high standards for self-evaluation, while being critical of their inability to realise these standards could also be considered consistent with perfectionism.

The relationships between characteristics of Impostors and elements of perfectionism have been supported by some empirical studies. Thompson, Davis, and Davidson (1998) found perfectionistic cognitions in subjects reporting high levels of impostor fears, such as a tendency to externalise success, holding high standards for self-evaluation, overgeneralisation of a single failure experience to their overall self-concept, and a high level of self-criticism. Thompson, Foreman, and Martin (2000) compared Impostors and non-Impostors in their affective and cognitive reactions to making mistakes; they found that Impostors reported a higher concern about their mistakes and a greater tendency to overestimate the number of mistakes they had made than non-Impostors. In addition, Impostors also reported greater dissatisfaction with their performance and viewed their performance as less successful than non-Impostors. These findings provided empirical support for the observations of Clance (1985) that Impostors reject any performance that does not reach their perfect standard and consider their performance as disappointing.

In addition to perfectionistic cognition, a recent study by Ferrari and Thompson (2006) explored whether impostor fears were associated with perfectionistic self-presentation. In 165 undergraduate students, Ferrari and Thompson found that impostor fears were moderately associated with

perfectionistic thoughts about avoiding imperfection, $r = .59$, non-display of imperfection, $r = .57$, and the need to appear perfect, $r = .40$. However, no significant correlation was found between impostor fears and non-disclosure of imperfection, $r = .17$. These results mean Impostors had the need to appear to be capable, competent and successful in order to gain respect and admiration from others. They also strived to conceal their imperfection by not engaging in situations when they were likely to reveal their personal limitations to others. These characteristics found in Impostors were similar to those found in perfectionists, who are highly self-conscious and have a strong desire to conceal their mistakes from others in order to appear perfect (Frost, Turcotte, Heimberg, Mattia, Holt, & Hope, 1995).

The difference between Impostors and perfectionists is that perfectionists will not disclose their mistakes to other people because they fear being viewed as imperfect (Frost et al., 1995), while Impostors will openly communicate their self-perception of imperfect performance to others (Ferrari & Thompson, 2006). Impostors do not want to appear imperfect and actively attempt to conceal their imperfection, but paradoxically Impostors do openly disclose their imperfection to others. One issue is how far the characteristics of Impostors are interpersonal strategies, avoiding attributions by others, as distinct from more concerned with their own self evaluation.

Leary, Patton, Orlando, and Funk (2000) argued that behaviours of Impostors can be viewed as self-presentational strategies used to avoid negative interpersonal implications of potential failure by engaging in self-deprecating behaviours, such as discounting praise and positive feedback or denying that they are as competent as others believe. Leary et al. (2000) showed that Impostors expressed lower performance expectations than non-Impostors only when their performance would be revealed to others, while Ferrari and Thompson (2006) found CIPS scores were positively correlated with favourable impression management strategies.

Ferrari and Thompson (2006) further investigated the relationship between impostor fears and social desirability to clarify whether Impostorism involves mainly self-presentational strategies. Using the Balance Inventory for Desirable Responding Scales (Paulhus, 1984), Ferrari and Thompson (2006) found Impostors did not believe they are better skilled than they displayed, $r = -.42$, but there was a weak tendency for Impostors to attempt to present a positive impression to others, $r = .24$. Ferrari and Thomson (2006, p. 345) concluded that “impostor fears may be regarded as behavioural demonstrations of perfectionism (but not public admission of failure) associated with frequent ruminations over being perfect”. These

studies may indicate that impostor fears are associated specifically with displays of perfect performance, but not necessarily general self-presentation concerns. To clarify issues with perfectionistic cognitions and perfectionistic self-presentation in Impostors, it would be useful to distinguish the role of social expectations versus self-oriented perfectionism in Impostors.

A study by Cromwell, Brown, Sanchez-Huceles, and Adair (1990) found Impostors are different from non-Impostors in that Impostors feel they need to achieve perfection in order to gain others' approval. This suggested that there may be social components contributing to perfectionism in Impostors. This is because Impostors fear being exposed to others as fraudulent and lacking in ability and attracting negative judgments from others. Thompson et al. (2000) found that Impostors have a higher level of fear of negative evaluation than non-Impostors and the motive behind their achievement behaviour is to meet their perception of other people's standards. These perceived social expectations may be a source of perfectionism in Impostors, which could be identified as socially prescribed perfectionism.

In summary, for personality factors, while one study has shown that Neuroticism was strongly related with Impostorism, others suggested it was a bit less related. Similarly, a strong negative correlation has been demonstrated for Conscientiousness and Impostorism in one study, though a few have found smaller correlations. As perfectionism is considered one of the most important characteristics of Impostorism, aspects of perfectionism and Impostorism would be expected to correlate relatively highly. Perfectionistic cognitions and non-display of imperfection were relatively strongly correlated with Impostorism, more highly than the correlation between Impostorism and trait anxiety. However, non-disclosure of imperfection was not significantly related to Impostorism.

Consequences of Impostorism

For Impostors, success does not mean happiness. Impostors often experience fear, stress, self-doubt, and feel uncomfortable with their achievements. Impostor fears interfere with a person's ability to accept and enjoy their abilities and achievements, and have a negative impact on their psychological well-being. When facing an achievement-related task, Impostors often experience uncontrollable anxiety due to their fear of failure. Burnout, emotional exhaustion, loss of intrinsic motivation, poor achievement, including guilt and shame about success are reinforced by repetitions of the Impostor Cycle (Chrisman et al., 1995; Clance, 1985; Clance & Imes, 1978). The perfectionistic expectations of Impostors also

contribute to the feeling of inadequacy, increasing levels of distress, and depression when Impostors perceive that they are unable to meet the standards they set for themselves or expectations from family and people around them. Clinical observations by Clance (1985) revealed that high levels of anxiety, depression, and general dissatisfaction with life are common concerns that motivate Impostors to seek professional help.

The relationship between Impostorism and negative psychological affect has been supported by many studies. Conceptually there may be a clear distinction between negative affect as an enduring disposition, which may have contributed to the development of Impostorism in childhood, and negative affect as an outcome of a stressor like impostor fears. It is not clear that concurrent administration of assessments considered as personality and those considered clinically diagnostic can make this distinction. The substantial relationships of Impostorism with trait anxiety and depression, considered as personality, are likely to be affected by current experience of negative affect.

Chrisman et al. (1995) found impostor fears moderately correlated with depression however it was significantly more strongly correlated with the Depression Experience Questionnaire (DEQ), $r = .62$, considered to assess the phenomenology of depression including depressive thoughts and feelings, than with assessments of psychiatric symptoms of depression or current affective state. Chrisman et al. also found a moderate relationship of impostor fears with pervasive affect, physiological indicators, and psychological concomitants, which were major characteristics of depression measured by the Zung Self-Rating Depression Scale (ZS-RSD; Zung, 1965).

Sonnak and Towell (2001) found that a high level of impostor fears were associated with poor mental health, $r = .33$, measured by the General Health Questionnaire (GHQ-12; Goldberg, 1978) in a sample of 117 undergraduate students. Henning et al. (1998) found that Impostorism accounted for the largest proportion of unique variance, comparing with perfectionism and demographic background, including gender, academic year of study, marital status, race, and previous mental health treatment, on psychological distress in medical and other health profession students. Ross, Stewart, Mugge, and Fultz (2001) found depression slightly more related to Impostorism than Anxiety, with similar correlations.

Review of the studies has shown the substantial role that Impostorism plays in psychological distress. Most studies have shown strong correlations, or perhaps some overlaps with measures of depressive thoughts and feelings, characteristics of depression, and aspects of psychological distress.

However, Impostorism appeared slightly less correlated to symptoms of depression assessed by the BDI.

Summary of research and limitations

This article has presented an overview of research into Impostorism, with particular focus on family achievement values and perfectionism, psychological distress, and coping styles in relation to Impostorism. A summary of Impostorism research in areas of family factors, personality factors, and negative psychological affect is presented in Table 1.

There are some issues regarding the proposed development and consequences of impostor fears that still need to be addressed. The review suggests the need to confirm the relationship between impostor fears and how achievement-related messages from family were delivered. Achievement-related messages from family that are invalidated, inconsistent, or confusing may have more effect than family achievement values on the development of Impostorism. For the relationship with perfectionism, the kind of perfectionistic cognitions and role of self presentation concerns of Impostors are unclear. For example, it has not been clearly established whether the perfectionistic needs of Impostors are derived from social expectations or within the self. Regarding the consequences of Impostorism, the review has demonstrated that impostor fears have the capacity to affect psychological health and well-being. However, the impact of coping styles on the relationship between Impostorism and psychological distress needs investigation.

Table 1

Summary of Impostorism Research in Relation to Family Background, Personality Traits, Depression and General Mental Health

	Areas of Research	Study	Relationship with Impostorism		
Antecedents	Family Background	Bussotti, 1990	<ul style="list-style-type: none"> Family Conflict Family Control 	Positive	Accounted for 12% of variance in the CIPS scores
			<ul style="list-style-type: none"> Family Cohesion Family Expressiveness 	Negative	
		Sonnak & Towell, 2001	Perceived parental control/Over protection	.27*	
			Perceived parental care	-.41***	
		Want & Kleitman, 2006	Perceived maternal/paternal control/Over protection	.25**(maternal) .34**(paternal)	
			Perceived maternal/paternal care	-.10 (maternal) -.30** (paternal)	
	King & Cooley, 1995	Emphasised achievement value and competition	.21*		
	Dinnel et al., 2002	Confusing messages about academic achievement from the family	.33**		
	Personality traits	Topping & Kimmel, 1983	Trait anxiety	.42***	
		Chae et al., 1995; Ross, et al., 2001; Bernard et al., 2002	NEO-PI-R: Neuroticism	.46*** to .64***	
NEO-PI-R: Conscientiousness			-.22** to -.49***		
Ferrari & Thompson, 2006		Perfectionistic cognitions	.59***		
	<ul style="list-style-type: none"> Avoidance of imperfection Non-display of imperfection Need to appear perfect Non-disclosure of imperfection 	.40*** .57*** .40*** .17			
	Areas of Research	Study	Relationship with Impostorism		
Consequences	Depression	Chrisman et al., 1995	Depressive thoughts and feelings (DEQ)	.62**	
			<ul style="list-style-type: none"> Characteristics of depression (ZS-RSD) Beck Depression Inventory (BDI) 	.55** .42**	
	General Mental Health	Sonnak & Towell, 2001	Poor mental health (GHQ-12)	.33**	
Henning et al., 1998		High level of psychological distress (BSI)	.49*** to .62***		

Note. * p< .05. **p< .01. *** p< .001.

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