

Public professionals and policy implementation: conceptualizing and measuring three types of role conflicts

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Abstract (max. 100 words, now 100 words)

Nowadays, public policies often focus on economic values, such as efficiency and financial transparency. Public professionals often resist implementing such policies. We analyse this using the concept of 'role conflicts'. We use a novel approach by conceptualizing and measuring role conflicts on the policy level, thereby linking policy implementation and social psychology research. We construct and test scales for policy-client, policy-professional and organizational-professional role conflicts. Using survey data, we show that policy-professional and policy-client role conflicts negatively influence the willingness of public professionals to implement policies. Concluding, we conceptualized and measured three role conflicts that can occur during policy implementation.

Key words

- Role conflicts
- Policy implementation
- Public professionals
- Resistance to change
- Scale development

1 Introduction

Within the public administration literature, there is an intense debate concerning the pressures that public professionals face when implementing public policies (Ackroyd et al., 2007; De Ruyter et al., 2008; Freidson, 2001). It seems that many public professionals are unwilling to implement public policies laid down by the government (Duyvendak et al., 2006; Hebson et al., 2003). For instance, in the Netherlands, many insurance doctors encountered substantial professional and moral concerns when asked to implement a new policy focused on re-examining welfare clients. In fact, about 240 doctors urged a strike against this new policy, and some decided to simply quit their job (Tummers et al., 2009). Other examples from Canada show that public professionals often do not accept new policies, and sometimes leave and start their own organizations (White, 1996).

When public professionals are unwilling to implement public policies, serious consequences can result. First, it can significantly decrease the effectiveness of policy implementation (Ewalt & Jennings, 2004; May & Winter, 2009). Second, the quality of interactions between professionals and citizens may be affected, possibly influencing the output legitimacy of government (Bekkers et al., 2007).

One important factor influencing the willingness to implement public policies seems to be the conflicts that professionals experience during policy implementation. Many contemporary policies focus strongly on economic values, such as efficiency and financial transparency. This can be seen as an outcome of the influence of New Public Management (NPM) (Hood, 1991). Public professionals may have difficulty in accepting the changing trade-offs in values – due to the introduction of NPM reforms – which become manifest when implementing a policy programme (Duyvendak et al., 2006; Freidson, 2001).

These difficulties that professionals experience during the implementation of NPM policies can be understood using the concept of role conflicts, as developed within the

social psychology literature (Kahn et al., 1964; Rizzo et al., 1970). When implementing a policy, professionals face different demands from a range of role providers. Role conflicts arise when professionals perceive these demands to be incompatible. Professionals working at the front-line experience a number of role conflict types (Lipsky, 1980:46). For example, a policy-client role conflict occurs when professionals perceive that the behavior demanded by the policy they have to implement (such as following strict policy rules) is incompatible with the behavior demanded by their clients (who want their situation to be taken into account). It seems that the introduction of NPM policies has increased the number of role conflicts as the values behind these policies (such as efficiency) can run counter to professional values (such as equity) (Duyvendak et al., 2006; Freidson, 2001).

In this study, we aim to examine the influence of role conflicts on the willingness to implement public policies. Our main research question is therefore:

What is the influence of the role conflicts encountered by public professionals during policy implementation on their willingness to implement public policy?

To be able to answer this research question, we firstly conceptualize and measure the role conflicts that occur during policy implementation, thereby combining insights from both the policy implementation and the social psychology literatures. Numerous authors have stressed the perverse effects of such conflicts (for example Honig, 2006; Noordegraaf & Steijn, forthcoming 2011; Schneider, 1982; Tummers et al., 2009) using qualitative case studies as the basis for their conclusions. In this study, a novel approach is used by *quantitatively* studying role conflicts during policy implementation. Here, we use a novel approach by conceptualizing and measuring role conflicts on the policy level, thereby linking policy implementation and social psychology research. Scale development techniques are used to conceptualize and measure these conflicts. This is valuable since,

as Harris (1991: 125) notes, ‘further theoretical explication and scale construction is necessary for research to proceed in this area. Researchers are encouraged to develop and use more specific subscales to measure role ambiguity and role conflict in future studies.’

After conceptualizing and measuring role conflicts on the policy level, we will examine their effects on the willingness of public professionals to implement public policy. In previous research, role conflicts have been related to job-level indicators such as stress, burnout, poor life satisfaction, difficulty in decision-making and poor job performance (Jackson & Schuler, 1985; Netemeyer et al., 1990; Tubre & Collins, 2000). However, in this research, we focus on the policy-level effects of role conflicts by looking at professionals’ willingness to implement a policy.

This brings us to the outline of this article. In Section 2, we consider the theoretical framework by relating literature on role conflicts and on policy implementation to examine the role conflicts faced by public professionals during policy implementation. In Section 3, our method for measuring role conflicts and testing the hypotheses are outlined. The results are presented in Section 4. We conclude the article by discussing the contribution this research makes to the policy implementation literature and the debate on professionals in public service delivery.

2 Theoretical framework

2.1 Introducing role conflicts

Organizational roles and role conflicts have been studied for at least sixty years (Tubre & Collins, 2000), starting with the work of key scholars such as Merton (1949) and Parsons (1951). Further, social psychologists such as Kahn et al. (1964) and Rizzo et al. (1970) have extensively studied role conflicts.

Examining the role conflict concept in work environments, Tubre & Collins (2000: 156) note that, 'conceptually, a role is a pattern of behaviours perceived by an employee as behaviours that are expected'. That is, employees often base their perceptions of the duties and expectations associated with their chosen profession on the definition of jobs and roles that others communicate to them (Kahn et al., 1964). A lack of compatibility between multiple expectations can create conflict and tension. When people are confronted with contradictory and competing role expectations, a situation described in occupational stress research as a role conflict arises. More specifically, Katz and Kahn (1978: 204) define a role conflict as 'the simultaneous occurrence of two or more role expectations such that compliance with one would make compliance with the other more difficult.'

An extensive body of knowledge concerning role conflicts has been built up. Research on role conflicts has been reviewed in three meta-analyses (Fisher & Gitelson, 1983; Jackson & Schuler, 1985; Tubre & Collins, 2000). In general, role conflicts have been linked to a range of negative job attitudes and behaviours (Jackson & Schuler, 1985; Netemeyer et al., 1990; Schaubroeck et al., 1998; Tubre & Collins, 2000). Nevertheless, some more positive effects have been recorded. For instance, Lowenthal et al. (1975:110) note that when individuals experience conflicting demands, this can increase opportunities to develop a more distinct personality at later points in life.

2.2 Applying role-conflict ideas to policy-implementing public professionals

The degree and type of role conflicts that arise during policy implementation can depend on the type of policy and the policy process. Wilson (2005) makes distinctions between redistributive policy, protective and competitive policy, morality policy and distributive policy. Within an NPM context, the government tries to enhance public performance by introducing more businesslike practices within the public sector. In this respect, NPM

policies focus strongly on economic values, such as efficiency and client choice (Hood, 1991). This type of policy is often top-down (Hill & Hupe, 2009) in nature and often fails to deliver tangible benefits to the regulated (Wilson, 2005). As noted in the introduction, such policies can generate role conflicts for the implementing public professionals (see also Duyvendak et al., 2006; Farrell & Morris, 2003; Lipsky, 1980; Smullen, forthcoming 2011; Tummers et al., 2009).

Based on literature from the sociology of professions (especially Freidson, 2001) and policy implementation streams (Duyvendak et al., 2006; Lipsky, 1980; Tummers et al., 2009), we have identified three role conflicts which are considered especially important when implementing public policies in such a situation: a policy-professional role conflict, a policy-client role conflict and an organizational-professional role conflict.

Firstly, we would argue that a policy-professional conflict can occur. Policy requirements are reflected in the policy contents, which are often laid down in formal rules and regulations, such as the policy goals to be achieved. The role behaviour demanded by these policy requirements can conflict with the professional values - the set of rules one would follow if allowed to act professionally as a member of a professional community. A policy-professional role conflict occurs when professionals tasked with implementing a policy perceive the role requirements demanded by the policy contents to be incongruent their professional attitudes, values and behaviour. This conflict can be particularly pronounced if the policy is implemented in a top-down way, without consulting the professionals (Hill & Hupe, 2009).

The second type considered relevant is the policy-client conflict. This type of conflict occurs when professionals tasked with implementing a policy perceive the role behaviour demanded by their clients to be incongruent with the role behaviour demanded by the policy content. For a somewhat extreme example, consider police officers who have to implement stricter law enforcement, such as zero-tolerance, policies. As Lipsky

(1980: 47) notes, these police officers 'must enforce laws they did not make in communities where demands for law enforcement vary with the laws and the various strata of the population'. As a result, enforcing zero-tolerance, in line with the policy content, can conflict strongly with the role behaviour demanded by clients, who want police officers to take account of their specific circumstances.

Thirdly, we distinguish the organizational-professional conflict. An organizational-professional role conflict occurs when a professional tasked with implementing a policy perceives the role behaviour demanded by the organization regarding policy implementation to be incongruent with his or her professional attitudes, values and behaviour. Although this is related to the policy-professional role conflict, it is logically independent as it looks at the way the organization *implements* the policy, not at the policy content itself. In public organizations, managers are important actors in the implementation of policies. There may be conflicts between the role behaviour demanded by these managers, which for instance may stress efficiency and focusing on quantifiable targets during policy implementation, and professional values and attitudes. A good example is of an insurance physician implementing a new policy on re-examining welfare clients. He stated that 'there is clearly a culture of repression. Management does not understand that doctors need time. Tensions arise when doctors want to work accurately and managers tell them that they have to do fifteen re-examinations a week' (cited in Tummers et al., 2009: 701). However, the overall picture may well be more mixed - that conflicts do occur, but only in limited ways. Many managers may well have values that are not that dissimilar from the professionals working under them, for example because they are, or used to be, frontline professionals themselves (Thomas & Davies, 2005).

2.3 Role conflicts and willingness to implement policy

Having conceptualized three types of role conflicts, we can now examine the possible consequences of these role conflicts on professionals' willingness to implement public policy. Many scholars see the commitment of public professionals as a prerequisite for the effective implementation of a public policy (Ewalt & Jennings, 2004; May & Winter, 2009; Van Meter & Van Horn, 1975). Further, it has been fairly consistently claimed within the field of change management that a crucial condition for success is that employees are willing to implement an intended change (Judson, 1991; Lewin, 1951). According to planned change theories, an absence of this willingness will result in a situation where top management's intentions to instil a change will not be transformed into real change efforts by lower echelons (Judson, 1991). According to the 'emergent change' school of thought, unwillingness will impede the process of small, bottom-up modifications, such that these will no longer accumulate and amplify (Weick, 2000). Alongside this, the notions of working, shirking or sabotage, as discussed by Brehm and Gates (1997), are relevant in this context. When public professionals are unwilling to implement the policy, 'shirking' or 'sabotage' are more likely to occur than 'working', and this is undesirable in terms of policy performance.

Although some prominent policy implementation scholars have emphasized the crucial role of front-line professionals being willing to implement the policy (Ewalt & Jennings, 2004; May & Winter, 2009), a validated scale for measuring this has not been developed. Therefore, we will draw on the change management literature, which has a long history of examining willingness/resistance to changes (Judson, 1991; Lewin, 1951), and use the concept of change willingness that has been validated by Metselaar (1997). Change willingness is defined as 'a positive behavioural intention towards the implementation of modifications in an organization's structure, or work and administrative processes, resulting in efforts from the organization member's side to support or enhance

the change process' (Metselaar, 1997: 42). In this article, the change refers to the policy that the professionals are required to implement.

We can now relate the willingness to implement a public policy with the three types of role conflict discerned above. Kahn et al. (1964) argue that role conflicts result in stress and anxiety on the part of organizational members. Hamner and Tosi (1974:479) note that 'it appears that role ambiguity and role conflict result in undesirable consequences for organization members.' (see also Tubre & Collins, 2000:156). We therefore expect professionals to prefer policies with less conflict to policies with greater role conflict, and that this will make them reluctant to implement policies of the latter variety. For instance, we expect professionals who experience a strong policy-client role conflict during policy implementation to be reluctant to implement the policy (Lipsky, 1980). We therefore hypothesize that:

H1: The more professionals experience a policy-professional conflict, the more unwilling they will be to implement a policy.

H2: The more professionals experience a policy-client conflict, the more unwilling they will be to implement a policy.

H3: The more professionals experience a organizational-professional conflict, the more unwilling they will be to implement a policy.

Although we expect intense role conflicts to negatively influence willingness to implement a policy, we do not expect all role conflicts to have the same magnitude of impact on the willingness to implement. First, a role conflict involving the policy (policy-professional or policy-client) could be more important than an organizational-professional conflict. This idea follows from one of the main conclusions of the work by Brehm and Gates, who note that policy preferences can be more important in influencing the attitudes and behaviour of

street-level bureaucrats than the coercive capacities of managers (1997:199; see also Golden, 2000).

Further, Dias and Maynard-Moody (2007) note that a 'social work narrative' is experienced by some frontline workers who focus on helping clients to achieve long-term success. Such public professionals want to enhance their clients' lives when implementing a policy (Maynard-Moody & Musheno, 2003). If one accepts this social work narrative, then it seems particularly important to consider the policy-client conflict above the organizational-professional conflict. This also corresponds with the findings of Riccucci (2005: 102) who concludes that 'state-level as well as agency officials may have very little influence over worker discretion. Rather, the reference point for workers' discretionary judgment may be the client.'

Summarizing, it seems that role conflicts can have different impacts on the willingness to implement a policy. In the empirical analyses, we will therefore analyse and try to explain the different impacts found in the case studied.

3 Method

3.1 The introduction of a new policy

To test the proposed relationships between role conflicts and the willingness to implement public policy, we surveyed Dutch mental healthcare professionals responsible for implementing a new reimbursement policy known as Diagnosis Related Groups (DRGs: in Dutch *Diagnose Behandelings Combinaties, DBC's*). These DRGs were introduced in the Netherlands as part of the Health Insurance Law in 2008. This new Health Insurance Law, and the associated DRGs, can be seen as an example of introducing regulated competition into Dutch healthcare, a move in line with New Public Management ideas (Hood, 1991).

The three interrelated policy goals of the DRG policy are a) to increase transparency in the costs and quality of healthcare, b) to increase efficiency and c) to increase patient choice. Policymakers expected that, initially, when healthcare providers start to use these DRGs ('healthcare products'), the activities of healthcare providers would become more transparent and hence comparable. After a sufficient amount of transparency was achieved, health insurers and healthcare providers would then have to negotiate the volume and price of DRGs. This should increase competition and thus efficiency (which Hood (1991:5) also sees as a doctrinal component of NPM). Furthermore, patients should be able to choose from among healthcare providers, thus increasing patient choice and efficiency.

We used the DRG policy for three reasons. Firstly, public professionals - here psychotherapists, psychologists and psychiatrists – have to implement this policy, which makes it relevant to the debate on the pressures public professionals face in service delivery. Secondly, the DRG policy focuses strongly on economic goals, such as efficiency and financial transparency. It is recognized that policies that pursue these kinds of goals are likely to arouse conflicts in professionals. Thirdly, in numerous countries, there have been moves towards similar healthcare payment systems, including the USA, Australia, Germany, England, Japan, Sweden and Belgium (Kimberly et al., 2009). The widespread use of such policies increases the possibility of generalizing our eventual conclusions.

3.2 Sampling and response rate

Our base sample consisted of 1800 mental healthcare professionals randomly selected from the databases of two nationwide mental healthcare associations. We received 478 returns of our questionnaire, an effective response rate of 26%. We carried out a non-response check, but this did not indicate that there was a bias in the respondents. The

most common reason for non-response was that the targeted professional did not work with DRGs (the reason given by 157 non-responding professionals), sometimes because they had yet to be implemented in their organisations. The next most frequent reason given was that the respondents had retired or changed occupation (17).

We chose to include only respondents who had answered all the questions, resulting in an effective sample of 411 respondents. Of the valid respondents, 121 (29%) were men and 290 (71%) women. This ratio is consistent with Dutch mental healthcare professionals as a whole, with Palm (2008) noting that females made up 69% of this workforce. The respondents' average age was 48, which is slightly higher than the Dutch national average for mental healthcare professionals ($M = 44$). Given the large number of respondents, the similarity of the respondents with the wider population in terms of demographic variables plus the results of the non-response check, we are confident that our respondents are representative of the population.

3.3 Measuring role conflicts: item generation and expert review

In this study, we have used a novel approach by studying the role-conflict concept within the domain of a specific public policy. As such, we had to develop a valid and reliable measure for this concept. In so doing, we followed the recommendations for scale development by DeVellis (2003).

Firstly, for each role conflict, ten items were generated, formatted as five-point Likert scales. We further used templates in constructing these items since these allow the researcher to use specific phrases that fit the context of the research (DeVellis, 2003: 62). For example, instead of stating 'the policy' and 'professionals', the researcher can rephrase these items using the specific policy and group of professionals that are being examined, here 'the DRG policy' and 'mental healthcare professionals'. This makes it easier for respondents to understand the items, as they are tailored to the context, which

increases reliability and content validity (DeVellis, 2003). Further, by explicitly developing templates, the developed items can be used more easily in other contexts (with other policies and professionals). As an example, one of the general items for the policy-client role conflict was:

I feel that I sometimes have to choose between the wishes of my clients and the rules and regulations of the policy.

When it comes to mental healthcare professionals implementing the DRG policy, the item becomes:

I feel that I sometimes have to choose between the wishes of my patients and the rules and regulations of the DRG policy.

Secondly, to further increase content validity, 21 expert reviewers examined the initial pool of items. These experts were selected for their various areas of expertise (DeVellis, 2003: 75) and included one specialist in electronic surveys, three experts on role conflicts, four quantitative methodologists, five mental healthcare specialists and eight public administration scholars.

After each expert interview, we considered adding or discarding certain items, based on the comments received. Eventually, we chose the six items which were considered best (on average by the respondents) for each role conflict to construct a pool of items to be administered in the wider questionnaire. By selecting six items for each role conflict type, we retained the possibility of deleting further items in later stages of the scale development process (DeVellis, 2003: 57). We confirmed the validity of the final pool of items by discussing it with three public administration experts, two quantitative methodologists and one specialist in mental healthcare drawn from our original advisors.

3.4 Measuring role conflicts

We conducted an exploratory factor analysis in order to examine whether it was possible to actually discern three different role conflicts based on the items used to measure them. At this early stage in developing role-conflict types, exploratory factor analysis was favoured over methods which test hypothesized groups (i.e. the three different role conflicts), such as confirmatory factor analysis. As criteria for item deletion, we adopted common statistical warning signs, such as items having correlations less than .40 or more than .90 with other items in the dimension, items loading more than .30 on to two factors (or with low overall communalities) and items having a negative contribution to Cronbach's alphas (Field, 2005; Hinkin, 1998).

Prior to conducting a factor analysis for the role conflicts, the inter-item correlation matrix was examined. If our items truly measure the same underlying dimension (i.e., role conflicts), then we would expect them to be related to each other. On this basis, we examined the items and then deleted one that had initially been designed to measure the policy-professional role conflict. This item's correlation was less than .40 with the other items and, on closer consideration, seemed more closely related to a factor linked to influencing a role conflict than being an item measuring a role conflict.

In our final exploratory factor analysis, three factors could be clearly identified, based on the obtained scree plot, the Kaiser's criterion and the theoretical meaningfulness of the factors (DeVellis, 2003). The initial factor solution contained additional factors but three of the items that were designed to measure the policy-client conflict had low communalities. After deleting these 'low-communality' items, a clear three-factor solution was produced.

Having identified the factor structure, we proceeded to determine the Cronbach's alphas for the three scales, a measure based on the correlations between the items, to check for sufficient internal consistency. The alphas for the role-conflict scales were all

above the minimum acceptable level of .70 (.81, .78 and .86 respectively). The results of these analyses are presented in Table 1.

Table 1 Factor loadings for the final pool of items (pattern matrix)

Item	Factor (F) loadings		
	F1	F2	F3
<i>Policy-professional role conflict – eigenvalue 1.4, 10.0% variance explained</i>			
Looking from my professional values and norms, I embrace the <u>policy</u> . (R)	.51	(.15)	(.03)
The <u>policy</u> negatively affects my professional autonomy.	.77	(-.14)	(.09)
I have the feeling that I sometimes have to choose between my professional values and the rules of the <u>policy</u> .	.72	(-.12)	(.21)
In working with the <u>policy</u> , I violate my professional ethics.	.60	(.31)	(-.06)
Working with the <u>policy</u> conflicts with my values and norms as a <u>professional</u> .	.83	(.15)	(-.06)
<i>Policy-client role conflict – eigenvalue 1.0, 7.3% variance explained</i>			
Many of my <u>clients</u> complain to me about the <u>policy</u> .	(.09)	.84	(.09)
Working with the <u>policy</u> clashes with the wishes of many <u>clients</u> .	(.17)	.56	(.14)
My <u>clients</u> experience the <u>policy</u> as a breach of their privacy.	(.14)	.83	(-.02)
<i>Organizational-professional role conflict – eigenvalue 6.2, 44.2% variance explained</i>			
Looking from my professional values and norms, I embrace the way my organization implemented the <u>policy</u> . (R)	(.11)	(-.05)	.71
The way my organization works with the <u>policy</u> conflicts with my professional autonomy.	(.10)	(.02)	.79
I have the feeling that I sometimes have to choose between the way my organization implements the <u>policy</u> and my professional values.	(.21)	(.02)	.69
Exactly following my organization's rules regarding the policy is incompatible with my professional values.	(.20)	(.09)	.62
I have professional concerns about the software systems my organization uses for the <u>policy</u> .	(.06)	(.25)	.54
The way my organization handles the policy clashes with my norms and values as a <u>professional</u> .	(.09)	(-.03)	.87
Template words are indicated using underline type. These are <u>policy</u> (for the research 'DRG policy' was used), <u>clients</u> ('patients' was used) and <u>professional</u> ('healthcare professional' was used). We discussed this with the five mental healthcare specialists, and they were satisfied with using these template words.			

3.5 Measuring willingness and control variables

We measured willingness to implement the policy using the validated five-item scale of Metselaar (1997). This scale uses templates to specify the change. Sample items are: 'I am willing to contribute to the introduction of DRGs' and 'I am willing to free up time to

implement the DRG policy'. The answers were given on a five-point Likert scale. The scale's Cronbach's alpha in this study was .85.

Finally, we included some control variables. Age (open question) was controlled for on the basis of earlier findings that older employees tend to be less positive about change and new policies (Wanberg & Banas, 2000). We also controlled for whether the respondent was a manager of other professionals (0 = no, 1 = yes) given that managers may have greater opportunities for participation, making them more willing to implement the policy. Gender was also tested for its potential relevance. Further, we examined the context in which the professional worked: as a freelance or in an institution. These types of work are clearly different and could affect a professional's experiences. Finally, the occupation of the professional was examined, since the policy could have different consequences for the diverse professions¹.

4 Results

4.1 Descriptive statistics

Descriptive statistics and intercorrelations of the variables are presented in Table 2:

¹ A professional can have multiple professions, such as being both a psychologist and a psychotherapist. In Table 2, a professional's responses are included under all the professions they claimed to belong to. No reference category was constructed given this complexity.

Table 2 Descriptive statistics and correlations for the variables in the study

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Sex	0.71	NA												
2. Age	47.97	10.89	-.24**											
3. Occupation researcher (among else)	0.04	NA	-.04	-.24**										
4. Occupation psychologist (among else)	0.74	NA	.19**	-.07	-.31**									
5. Occupation psychotherapist (among else)	0.45	NA	-.05	.43**	-.18**	.16**								
6. Occupation psychiatrist (among else)	0.17	NA	-.22**	.12*	-.06	-.74**	-.28**							
7. Professional works only as a freelance	0.24	NA	.00	.37**	-.11*	.01	.40**	-.09						
8. Professional works in an organization and as a freelance	0.18	NA	-.09	.16**	-.09	-.03	.06	.10*	-.26**					
9. Managing position	0.27	NA	-.17**	.09	-.07	-.19**	-.10*	.29**	-.16**	.12*				
10. Policy-professional Role Conflict	3.72	0.77	-.07	.20**	-.03	-.02	.22**	.06	.10*	-.02	-.05			
11. Policy- client RC	2.95	0.78	-.04	.22**	-.05	-.04	.15**	.07	.18**	-.07	.00	.57**		
12. Organization-Professional RC	3.25	0.73	-.09	.18**	.06	-.12*	.07	.10*	-.01	.02	-.01	.64**	.50**	
13. Willingness to implement the policy	2.53	0.81	.13*	-.18*	-.04	.08	-.09	-.14*	-.08	.01	.08	-.53**	-.41**	-.37**

Note. *p < .05, **p < .01

As can be seen from Table 2, all the bivariate hypothesized correlations of the variables were statistically significant and in the anticipated direction.

The use of self-reported data from a single questionnaire can create distortions in the data, in particular as a result of common method bias (Podsakoff & Organ, 1986). Of concern here is that respondents were asked to rate both their degree of role conflicts as well as their willingness to implement a policy. Any correlation between the policy-professional role conflict, for example, and their willingness to implement the policy may be attributable to the fact that employees were asked to rate both aspects within a single questionnaire. To determine whether this was a valid concern, we conducted a Harman one-factor test. A factor analysis was conducted on all the items. The factors together accounted for 64% of the total variance (using the eigenvalue greater than unity criterion). Further, the first (i.e. largest) factor did not account for a majority of the variance (only 27%). Given that no single factor emerged and that the first factor did not account for a majority of the variance, common method variance does not seem to be a significant concern with the results obtained.

4.2 Regression results

Hierarchical multiple regression analyses were conducted to examine the extent to which the three role conflict types predicted willingness to implement the policy. Firstly, we regressed willingness to implement the policy on the control variables. Next, we added the policy-client role conflict (model 2), the policy-professional role conflict (model 3), and the organizational-professional role conflict (model 4). In each step, the change in **explained variance (R^2)** was calculated, and we determined whether each change was significantly different from zero.

In the first model, with control variables in the equation, the R^2 was .08 ($F=4.07$, $p<.01$). Inclusion of the policy-professional role-conflict scores in the second model

increased the R^2 to .32. After adding the policy-client role-conflict scores, the R^2 increased to .33. Finally, with the insertion of the organizational-professional role conflict, the R^2 remained at .33. Thus, the combination of the three role conflicts contributed considerably to the implementation (un)willingness experienced by public professionals. We can now look at the specific hypotheses.

Hypothesis 1 predicts that the degree of policy-professional role conflict experienced by public professionals will be negatively related to their willingness to implement DRGs. As Table 3 shows, when we look at the final model, the policy-professional role conflict was indeed significantly related to willingness to implement the policy ($\beta=-.42$, $p<.01$). That is, when public professionals feel that the policy is in conflict with their professional values, they are less inclined to make an effort to implement the policy. With respect to Hypothesis 2, the results also show a significant negative relationship between policy-client conflict and implementation willingness ($\beta=-.15$, $p<.01$). So, when professionals experience a stronger conflict between policy demands and the demands and wishes of their clients, they become less willing to implement the policy. Hypothesis 3 predicts that a more intense organizational-professional role conflict reduces willingness to implement a policy. However, this relationship appeared not to be significant once all the other factors were controlled for. Therefore, this hypothesis is rejected.²

These results support our expectation that role conflicts do not all have the same magnitude of impact on willingness to implement a policy. However, we had not expected the organizational-professional role conflict to have no effect at all on the willingness to implement a policy. We were able to further examine this insignificant influence of the

² Although the correlation of this role conflict with willingness to implement a policy was statistically significant, in the regression analysis this influence became insignificant once other variables were taken into consideration. This is not due to multicollinearity, which is sometimes the cause, since this was not an issue in our regression, as shown by the low VIF values.

organizational-professional role conflict. Based on expert interviews and numerous open answers in our survey, we concluded that one major reason for this finding is that the organizations had very little influence on the way the DRG policy was implemented as the rules were rather stringent. Professionals stated that 'My organization had little choice other than to go along with the national DRG policy' and 'My impression is that my organization had few options in the execution of the DRG policy'.³ Further, some managers shared the values of professionals, often not being that fond of the DRG policy themselves. As one professional noted: 'I think that the DRG policy was for organizations - including my own - a necessary evil. They had to make the best of it. Nobody is happy about this.' One of the few things the organization did have an influence on was the ICT system used for the DRG policy, but this was not significant compared to the changes brought about by the DRG policy itself.

³ Quotations are drawn from open answers recorded in the survey described in this article and translated from the Dutch originals.

Table 3 Hierarchical regression analyses for variables predicting willingness to implement the policy

	Model 1 – including control variables	Model 2 – including policy-professional role conflict	Model 3 – including policy-client role conflict	Model 4 – including organizational-professional role conflict
Woman	.07	.06	.06	.06
Man	Ref.cat.	Ref.cat.	Ref.cat.	Ref.cat.
Age	-.15**	-.09	-.08	-.08
Occupation: researcher	-.15**	-.11**	-.11*	-.11*
Occupation: psychologist	-.18*	-.11	-.11	-.11
Occupation: psychotherapist	-.09	-.02	.02	.02
Occupation: psychiatrist	-.30**	-.18**	-.18*	-.18*
Professional works only as freelance.	.01	.01	.00	.00
Professional works as freelance and in an organization.	.04	.01	.00	.00
Professional works only in an organization.	Ref.cat.	Ref.cat.	Ref.cat.	Ref.cat.
Managing position	.13**	.09**	.09*	.09*
Non-managing position	Ref.cat.	Ref.cat.	Ref.cat.	Ref.cat.
Policy-professional role conflict		-.50**	-.42*	-.42*
Policy-client role conflict			-.15**	-.15**
Organizational-professional role conflict				.00
ΔR^2		.23**	.02**	00
Overall R^2	.08**	.32**	.33**	.33**

Note: Standardized coefficients are presented. * $p < .05$ ** $p < .01$.

The following criteria are met (based on Field, 2005):
 Criterion of independent residuals (Durbin-Watson 1.8, $1 < \text{criterion} < 3$). Criterion for no multicollinearity (all VIF values below 10 and average close to 1). No exclusion of influential outlying cases was required (using casewise diagnostics, 4.6% above standardized residual $> |2|$), Cook's distance max. 0.09 (criterion < 1). Criteria for homoscedasticity and normality met.

5 Discussion and conclusions

Public professionals are often unwilling to implement public policies, especially when these policies focus on business values such as efficiency (Duyvendak et al., 2006; Freidson, 2001; Noordegraaf & Steijn, forthcoming 2011). This can be an undesirable situation given that policy implementation scholars have shown that implementers' willingness to implement public policies is crucial for policy performance (Ewalt & Jennings, 2004; May, 2003). In this study, we have aimed to quantitatively examine the impact of role conflicts on this (un)willingness to implement public policies. Based on our analyses, we can draw three conclusions that should be of interest to policy implementation scholars and practitioners.

Firstly, we have added to the policy implementation literature by conceptualizing and measuring three role conflicts that could occur during policy implementation. Following the recommendations for scale development by DeVellis (2003), we developed corresponding role conflict scales. Other researchers can use these scales to examine role conflicts during policy implementation. Policymakers and managers could use these scales to discover which conflicts are occurring during the implementation of a particular policy. Based on the results, they could try to alleviate the most intense or influential role conflicts.

Secondly, using a survey of 411 mental healthcare professionals, we showed that when professionals experience role conflicts, they are indeed less willing to implement new policy programmes. The three role conflict types, together with conventional control variables, explain over 30% of the variance in willingness to implement the policy. Looking at the relatively large impact of role conflicts on willingness to implement policy, we therefore recommend scholars and practitioners to include the role conflict concept when studying policy implementation on the street-level.

A related future research suggestion is to quantitatively examine the relationships among role conflicts, policy performance and discretion – something we did not explore here. On the one hand, discretion could enable professionals to cope more effectively with role conflicts, and this should therefore increase their willingness to implement a policy (and therefore boost policy performance) (see also Maynard-Moody & Musheno, 2000). On the other hand, more discretion could exaggerate the implementation gap. Exploring these relationships could provide new insights into the experiences and behaviour of frontline professionals during policy implementation.

Our third conclusion relates to the individual role conflict types. The policy-client and the policy-professional conflicts proved to be influential in explaining willingness to implement policies. In the case studied, the policy-professional role conflict proved the most important: implementers who could not align their professional values with the rules of the policy, were far less willing to implement it. This highlights the importance of professional values during policy implementation, and their potential conflicts with a new policy (see also Anderson, 2010). This is an important conclusion for policymakers and managers. They need to be aware of this conflict when a policy is to be implemented by professionals such as teachers, physicians or psychologists. Policy implementation scholars could further examine this role conflict, and they could use insights from the sociology of professions literature which has a long history of examining professionalism and how it conflicts with other 'value systems' (Eraut, 1994; Freidson, 2001).

Unlike the policy-professional and the policy-client conflicts, the organizational-professional role conflict did not appear to be a significant determinant of the willingness to implement a governmental policy in the case studied. One major reason for this is, with respect to the DRG policy, that the policy rules were rather strict, making it difficult for organizations to adapt the policy to their situation. This conclusion nuances the often stated manager-professional clash (Davies & Harrison, 2003; Wilensky, 1964). It is more

in line with the view of those scholars who note that many managers may well have values and goals that are not that dissimilar from those of professionals (Crilly & Le Grand, 2004; Hewison, 2002) and that managers are increasingly subject to forces beyond their own organization, such as new policies, politics and the media (Noordegraaf & Steijn, forthcoming 2011). In line with this argument, we found that, in our case, managers had to implement policies that they did not in principle agree with, and 'sell' these policies within their organizations. Policy implementation scholars could usefully further research and highlight this intriguing managerial role during policy implementation.

As with all studies, this one had a number of limitations. Here, we discuss two important limitations. Firstly, the results of this study, and the implications drawn, should be interpreted in light of the study's limited context and sample. Although the study's generalizability was increased by the large number of public professionals involved, and that these were working in different occupations, positions and places, one should be cautious in generalising this to other public-sector policies or domains. An area for further research would be to test the proposed model on other types of policies in a range of public domains.

A second limitation of this study is that it did not explicitly take the organizational context into account. Future studies could rectify this. For instance, what are the characteristics of the implementing organization and the implementing professionals? A number of interviews with specialists drawn from the specific field could be helpful before conducting a survey. Furthermore, following a survey, it would seem worthwhile to discuss its results with such specialists in order to contextualize the results.

Concluding, this study has conceptualized and measured three role conflicts that public professionals can experience during policy implementation. Researchers can use these instruments to measure role conflicts during policy implementation. Further, this study has shown how these role conflicts impact on the willingness (or resistance) of

public professionals who have to implement public policies. Future research into the role conflicts experienced by professionals during policy implementation, including ways to minimize these conflicts can be a timely and productive endeavour for both researchers and practitioners alike.

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