

**Coping during public service delivery: Developing a
measurement instrument for survey research**

Lars Tummers & Michael Musheno

Erasmus University Rotterdam & University of California, Berkeley

Paper for the Public Management Research Conference

Minneapolis, Minnesota, US, June 11-13, 2015

-- WORK IN PROGRESS--

Contact author:

Lars Tummers, Dept. of Public Administration, Erasmus University Rotterdam,

Tummers@fsw.eur.nl

Abstract

Frontline workers, such as teachers and social workers, often experience stress when delivering public services to citizens. They adapt by coping, using such practices as working overtime, effectively managing time, prioritizing clients or rationing services. Various scholars within public administration have analyzed the phenomenon of 'coping during public service delivery'. However, a reliable and valid measurement instrument for coping, which can be used for surveys, has not yet been developed. This hampers progress in the field. This study therefore develops valid and reliable scales for five important ways of coping during public service delivery, such as prioritizing, routinizing and rationing. The scales were reviewed by interviewing 18 experts. The scales were then administered in a pilot survey among teachers, a survey among Californian social workers, and a nationwide US survey among teachers. A reliable and valid measurement instrument for coping during public service delivery helps in understanding and enhancing performance and well-being at the frontline of the public and non-profit sector.

Keywords

Frontline work, Street-level bureaucracy, Coping, scale development, measurement instrument, Behavioral public administration

1 Introduction

Workers on the frontline of public services, such as police officers, social workers, teachers and physicians, often face severe workloads. Further, they often experience conflicting demands from policy mandates, clients' needs, professional codes and their personal values (Hill & Hupe, 2009; Maynard-Moody & Musheno, 2003; 2012, Sager et al., 2014; Tummers et al., 2012). As a result, frontline workers experience stress on a regular basis when delivering public services to citizens.

To understand how frontline workers deal with these stresses coming from public service work, Michael Lipsky (1980; 2010) adapted the concept of 'coping', thereby drawing upon the work of the psychologist Richard Lazarus (1966). Inspired by Lipsky, many scholars have studied coping during public service delivery and policy implementation (for instance Brodtkin, 1997; Kelly, 1994; Knight & Trowler, 2000).

Tummers, Bekkers, Vink and Musheno (2015) aimed to enhance the theoretical development and refinement of coping by defining the boundaries of coping during public service delivery, and developing a coherent classification of coping behavior in this context. Combining insights from public administration (Maynard-Moody & Musheno, 2012; 2003; Hill & Hupe, 2009; Winter, 2003; Lipsky, 1980) and psychology (Folkman and Lazarus; Skinner et al., 2003), coping during public service delivery was defined as behavioral efforts frontline workers employ when interacting with clients, in order to master, tolerate or reduce external and internal demands and conflicts they face on an everyday basis. Here, we follow this definition. Hence, we focus on *behavioral* ways of coping when *frontline workers interact with clients* (during so-called 'public encounters'; Bartels, 2013). This is in line with how public administration scholars predominantly study frontline work; they analyze how the behavior of frontline workers directly affects public service delivery, forming, transforming and reforming policies through interactions with citizens.

Based among else on an extensive literature review of 30 years of coping (1981-2014), nine ways of coping during public service delivery have been identified. These include routinizing work, rationing services, but also more engaged ways of coping such as using personal resources (time, money) to help clients. Qualitative studies have also been carried out to analyze the value of these ways of coping (see for instance Tummers & Rocco, 2015). In this study, we take the next step by developing a reliable and valid quantitative measurement instrument for coping during public service delivery, which can be used for survey research.

What is the added value of having such a measurement instrument? Firstly, there is an increasing need to quantitatively analyze how frontline workers interact with clients as most studies on coping during public service delivery used a qualitative design (for instance Dubois, 2010). This qualitative research is very valuable as it captures how and why frontline workers deal with clients in various ways, from providing them with favors and money (moving towards clients) to even becoming aggressive towards them (moving against clients). Quantitative research, on the other hand, can help in theory testing and statistical generalization, which can provide new insights to the debate concerning the experiences of frontline workers. It can for instance show what the most important reasons are – across many workers – why they provide extra assistance to clients by working overtime or effectively prioritize among clients.

The second contribution of this study of coping is methodological. We develop a measurement instrument, based on the recommendations of among else DeVellis (2003). Developing a high quality measurement instrument involves several time-intensive steps, such as writing items, checks with various experts, setting out the measurement instrument to various samples and statistically analyzing the dimensionality of the instrument. The public administration community has not developed many psychometrically sound measurement instruments. Exceptions are Public Service Motivation (Perry, 1996) and policy alienation (Tummers, 2012). Pandey and Scott (2002) note that sound measurement, through the careful development of concepts and

measurement scales, can be highly beneficial for public administration. Scholars and practitioners can use these measurement instruments to analyze which ways of coping frontline workers use, and the reasons and effects for them. In this way, they can for instance analyze whether workload is indeed the most important factor why frontline workers work overtime as a way to cope, or that the work culture and insufficient organizational resources are more important.

The paper is organized as follows. First, we will develop a background of coping during public service delivery. We will then describe the method (Section 3) and outline our results (Section 4 and 5) as they relate to the goal of developing the measurement instrument. This includes the generation of an item pool that was refined through 18 interviews, resulting in a scale which was then tested in (ongoing and planned) large scale surveys of social workers and teachers in the United States. We conclude by discussing the contribution this coping during public service delivery measurement instrument can make to the public administration discipline, for both researchers as well as practitioners.

2 Background to coping

2.1 Defining coping during public service delivery

To understand the concept of coping, one must go back to the 19th century when Freud introduced psychoanalysis (Breuer & Freud, 1955 (1893)). In Freud's theory, the concept of defense was very important and referred to the ego's struggle against unpleasant feelings. In the 1960s, a new research line emerged from this work under the label of 'coping'. The most notable work here is 'Psychological stress and the coping process' by Richard Lazarus (1966). Based primarily on this work, coping has developed as a distinct research field.

Folkman and Lazarus (1980:223) define coping as "the cognitive and behavioral efforts made to master, tolerate or reduce external and internal demands and conflicts

among them” (see also Skinner et al., 2003). This definition is broad. Coping in its most general form can range from positive thinking, quitting one’s job to talking to one’s partner. In this study, we focus on coping during public service delivery. These are *behavioral* ways of coping that occur when *frontline workers interact with clients* (during so-called ‘public encounters’; Bartels, 2013). This is in line with how public administration scholars predominantly study frontline work; they analyze how the behavior of frontline workers directly affects public service delivery, forming and reforming policies through interactions with citizens (Maynard-Moody & Musheno, 2012; 2003; Hill & Hupe, 2009; Winter, 2003; Lipsky, 1980). Combining the work of Folkman and Lazarus (1980) and Skinner et al. (2003) and that of public administration scholars, coping during public service delivery is then defined as *behavioral efforts frontline workers employ when interacting with clients, in order to master, tolerate or reduce external and internal demands and conflicts they face on an everyday basis.*

We fully acknowledge that there are other ways of coping that are important to frontline workers (and which they also engage in). Some are behavioral, but take place outside public encounters, such as seeking help and comfort with co-workers, supervisors or with family. Others are cognitive instead of behavioral, such as cognitive exhaustion and cynicism. These ways of coping have been studied extensively in literature streams like organizational behavior, leadership and occupational health psychology (see for instance Schaufeli et al., 2009; Sonnentag & Jelden, 2009). We also recognize that the boundaries are not clear-cut and that there are potential connections (Goodsell, 2004). However, this distinction serves as a helpful analytical tool to focus on behavioral ways of coping that are embedded in direct frontline worker-citizen interactions (Hill & Hupe, 2009; Winter, 2003; Lipsky, 1980). This is also shown in Table 1.

Table 1 Examples of various ways of coping of frontline workers. We focus on type 1 (adapted from Tummers et al., 2014).

	Behavioral coping	Cognitive coping
During public encounter (client-worker interaction)	1. <i>Routinizing, working overtime to help clients.</i>	2. Client-oriented cynicism, compassion towards clients, emotional detachment from clients
Not during public encounter	3. Social support from colleagues, complaining towards managers, turnover, substance abuse.	4. Cognitive restructuring, cynicism towards work, work alienation

2.2 Classifying coping during public service delivery

Based on the work of Lazarus and others, scholars tried to classify coping. Various difficulties have emerged, such as overlapping and incomparable categories (Parker & Endler, 1996). An important learning point was that distinguishing between coping levels is essential to systematically order coping (Ayers et al., 1996). In a seminal article, Skinner et al. (2003) developed a hierarchical coping order consisting of four levels on which we will draw in building a classification of coping during public service delivery.

The coping order of Skinner and her colleagues ranges from the very specific (instances of coping) to the very abstract (adaptive processes). Starting with the very specific, *coping instances* are concrete responses in which people try to master, tolerate, or reduce stress. These coping instances can be grouped into *ways of coping*: recognizable action types that provide boundaries to the instances of coping. Thirdly, *families of coping* are higher order categories that can be used to organize ways of coping based on their function. These families can be grouped into *general adaptive processes*. As we are interested in coping in practice and less in very general adaptive

processes (which are very abstract, see Skinner et al., 2003), we focus on families of coping, ways of coping and coping instances.

Based hereon – and the systematic review of the literature -, Tummers et al. (2014) identified families of coping specific to public service delivery (see also: Horney, 1945; Bekkers, Moody & Edwards, 2011): ‘moving towards clients’, ‘moving against clients’ and ‘moving away from clients’.

Moving towards clients, pragmatically adjusting to client’s needs, can be seen as coping in the client’s benefit. The latter two families can be seen as coping in the worker’s benefit. Moving away from clients, categorizes behavior in which frontline workers avoid meaningful interactions with clients, whilst ‘moving against clients’ analyzes confrontations with clients. As these last two families are very much related, we combine these (see also Tummers & Rocco, 2015).

Within these families, nine ways of coping are specified by Tummers et al. (2014). In this study, six of these ways of coping are used to develop a measurement instrument. The chosen ways of coping are all general ways to cope with clients, such as rationing services (Kelly, 1994) or prioritizing clients who need the most help (Kriz & Skivenes, 2012). The three ways of coping we do not take into account are more specific as they explicitly deal with rules: rule bending (Handler, 1986), rule breaking (Anagnostopoulos, 2003) and rigid rule following (Hagen & Owen-Mansley, 2002). For instance, Gofen (2013) described the phenomenon of rule bending by showing how social workers loosely interpreted the criteria on who was entitled to a specific benefit, as they felt that that was more beneficial for their clients and ultimately for society.

Although it would be ideal to measure all ways of coping in one questionnaire, this is hardly feasible. 9 ways of coping with on average six items (=total 54 items) is above the maximum of 50 items for measurement instruments on coping (Sveinbjornsdottir & Thorsteinsson, 2008) and will leave limited room for included other variables which can be used to determine the discriminant and concurrent validity of the measurement instrument. Therefore, we chose to focus only on the general ways of

coping. A related reason is that in the literature it is sometimes noted that for frontline workers, rules are not always 'top of mind' for frontline workers. This can be related to the citizen-agent narrative, which emphasizes that frontline workers concentrate on who their clients people are, and enforce cultural abidance over legal abidance (see for instance Maynard-Moody & Musheno, 2012; Harrits & Moller, 2014). The ways of coping for which we will develop scales are shown in Table 2.

Table 2 Families and ways of coping during public service delivery

<i>Coping family & Way of coping</i>	<i>Description</i>	<i>Example of coping instance</i>
Moving towards clients		
Working overtime	Workers using their own time to benefit the client (based on way of coping 'using personal resources')	A teacher grading exams in the weekend
Priority setting	Workers focusing their attention and time on clients who need it the most	A welfare worker putting in extra effort to help an unemployed mother who needs a job quickly
Time management	Worker trying to be more efficient with his/her use of time for clients (based on way of coping 'instrumental action')	A community police officer planning his day beforehand so that he can be more time on the streets in his specific community
Moving away or against from clients		
Routinizing	Workers dealing with clients in a standardized way, making it into a matter of routine	A social worker treating all his clients similarly, even when he/she knows some need more specific help
Rationing	Workers limiting service availability to clients	A professor telling students that he will be unreachable for the coming two months

First, regarding the family of coping 'moving towards clients', three ways of coping are identified: working overtime, priority setting and time management. Working overtime

can be seen as a way of coping which involves devoting personal resources to help the client. For instance, Triandafyllidou (2003:270) described how police officers coped with high workload by 'working outside normal working hours' and working 'whole days without a pause'. Next, frontline workers can use the way of coping 'priority setting': focusing attention on those clients who need it the most. This is highly related to the notion of 'triage' in medicine: determining which patients need treatment in the face of scarce time and resources (see for instance Frykberg, 2002). Sheehan et al. (2002) use these insights and show that for frontline workers such as law enforcement officers it is essential to prioritize which clients need help, especially in crisis situations. The last way of coping within the family 'moving towards clients' is time management. Some frontline workers cope with high demands by analyzing how they are devoting their time with clients, studying how they can be more efficient. They for instance review their daily activities to check where they are wasting time with clients. Furthermore, some plan their daily activities with clients beforehand. In these ways, they can achieve more in the same amount of time. Peeters and Rutte (2005) for instance found that a combination of high work demands and low autonomy predicted burnout for teachers low in time management but not, or to a lesser extent, for those high in time management.

The next family of coping analyzes ways of coping which 'move away or against' from clients. The first way of coping within this family, routinizing, can be described as dealing with clients in a standardized way, making it into a matter of routine. The opposite of routinizing might be developing 'tailor-made solutions'. An illustrative example of routinizing is described by Brodtkin (1997), who showed that rather than responding to client needs, social workers with high work pressure often defined client needs to fit the available slots and tried to avoid eliciting service claims. Another way of coping in the family 'moving away or against clients' is 'rationing'. Instead of making services more standardized (routinizing), frontline workers can also make accessing the public service more difficult for clients (rationing). Rationing is used when work pressure is high, and the frontline worker has substantial power over the availability of services.

Triandafyllidou (2003:275) quotes a police officer who tells clients who apply for citizenship: “*The office is very busy today; return tomorrow if you wish*”.

Having described the background to coping during public service delivery and the families and ways of coping we aim to study, we can move on to develop a measurement instrument for coping during public service delivery. The definitions of the ways of coping during public service delivery will act as guides in scale development.

3 Method

3.1 Item generation and expert review

For each way of coping, six items were generated with answer categories never, sometimes, often, always. We used templates in constructing the items. Templates allow researchers to adapt items to their specific situation by replacing general phrases with more specific ones: ones that fit the context of their research. For example, instead of using the terms ‘clients’, the researcher can rephrase this to suit the specific situation, for instance with ‘students’ in an education section or ‘patients’ in a healthcare setting. This approach has been found to increase reliability and content validity (DeVellis, 2003). As an example, one of the template items working overtime is:

I limit my breaks to keep up with work for clients

When studying how teachers cope this becomes:

I limit my breaks to keep up with work for students

To further increase content validity, 18 experts examined the initial pool of items. These experts were selected for their various expertise (DeVellis, 2003, 75), as shown in the table below.

Table 3 Experts interviews for checking items of ways of coping

<i>Type of experts</i>	<i>Specific expertise</i>	<i>Number of people</i>
Frontline workers	Understandability and relevance to practice	12
Public administration	Relevance to public administration literature	4
Psychometrics	Psychometric properties of instrument	1 (interviewed multiple times)
IT	Applicability to web-survey	1
Total		18

After each interview, we would potentially add or discard items based on the expert's comments. Based on the expert interviews, we chose the six best-fitting items for each way of coping to construct a pool of items. Harvey et al. (1985 in Hinkin, 1998) recommend a minimum of four items per scale for testing the homogeneity of items within a latent construct. By selecting six items, we retained the possibility of deleting items in later stages of the scale development process (DeVellis, 2003, 57). We checked in a pilot survey of 27 teachers. Based on these steps, a final pool of items was constructed. This pool of items is shown in Appendix 1.

In the second study, we changed the answer categories from a 1-5 scale to a 1-7 scale to prevent ceiling effects. To make the data comparable between studies, descriptive are shown using 1-7 scales for all studies.

3.2 Sampling and response rate

The final pool of items was tested using various samples (**in progress**). First we used a sample of 252 social workers in a non-profit organization in the United States that provides mental health and social services to children, young adults, and their families. The response rate was very high, at 70%. Second, we used a sample of 452 teachers, drawn from the listservs of the National Education of Education in the United States.

Third, we used a sample of 200 school social workers, drawn from the California Association of School Social Workers [ongoing].

3.3 Exploratory and confirmatory factor analyses

First, an exploratory factor analysis was conducted on the data using a principle components approach with an oblique rotation. At this early stage in developing coping scales, exploratory factor analysis is favored over methods which test hypothesized groups, such as confirmatory factor analysis. We opted for principal component analysis as it is a proven procedure, common in the social sciences (Field, 2005, 629-631). We opted for oblique rotation as this is the favored rotation method when factors are expected to be related (Field, 2005), which we indeed expected, based on the coping (Tummers et al., 2014). Second, we will use Confirmatory Factor analyses (Brown, 2006) using Mplus (Muthén & Muthén, 1996), to analyze whether the factor structure found is robust.

4 Results of exploratory and confirmatory factor analyses

[In progress. Text to be written after all data has been collected. Based on first set]

Table 4 Ways of coping: factor loadings for the final item pool items (family moving towards clients)

Items	F1	F2	F3	F4	F5
<i>Coping: Working overtime</i>					
I work extra time to be able to fulfill my <u>clients'</u> needs	.62				
I limit my breaks to keep up with work for <u>clients</u>	.45				
I work on my days off to serve my <u>clients</u>	.88				
I skip after-work personal activities to work for <u>clients</u>	.76				
	.78				
<i>Coping: Time management</i>					
I look for ways to increase the efficiency with which I perform my <u>client</u> -related activities					.61
I evaluate my activities with <u>clients</u> to analyze how I can do more in less time					.73
I review my daily activities with <u>clients</u> to see where I am wasting time					.74
I thoroughly plan my daily activities with <u>clients</u> beforehand					.66
During the day, I evaluate how well I am following my goals for <u>client</u> -related activities					.65
<i>Coping: Priority setting</i>					
I give priority to <u>clients</u> who will benefit the most from my help					.76
I devote my attention to <u>clients</u> who especially need it					.71
I spend more time with <u>clients</u> who will benefit hugely from my help than with others					.86
I especially help <u>clients</u> to whom I can make the biggest difference					.86
The limited time I have goes to <u>clients</u> who are heavily dependent on me					.66

Notes: F=Factor, Factor loadings < .4 are not shown, R = reverse item

Table 5 Ways of coping: factor loadings for the final item pool items (family moving away or against clients)

Items	F2	F3	F4	F5	F6
<i>Coping: Routinizing</i>					
I develop specific, tailor-made, solutions for <u>clients</u> (R)				.69	
I adjust standard work methods to fit the specific problems of <u>clients</u> (R)				.77	
I gather extra information to understand the uniqueness of <u>client's</u> problems (R)				.69	
I help <u>clients</u> in a way that really fits their specific needs (R)				.72	
When working with <u>clients</u> , I fully take into account their personal situation (R)				.59	
<i>Coping: Rationing</i>					
The circumstances in my job require me to ration my time with <u>clients</u>					- .64
I spend less time with <u>clients</u> than would be optimal for them					- .79
Because of my limited time available I cannot help <u>clients</u> to the fullest					- .77
I am unable to give <u>clients</u> the attention they deserve					- .65

Table 6 Reliability and descriptive statistics for ways of coping study 1 (1-5 scale) & study 2 (1-7 scale)

Way of coping	Reliability	Minimum	Maximum	Mean
1. Working overtime	.78 / .85	1.33 / 1.17	5.00 / 7.00	2.99 / 5.44
2. Time management	.78 / .85	1.80 / 2.67	5.00 / 7.00	3.64 / 5.74
3. Priority setting	.85 / .86	1.00 / 1.00	5.00 / 7.00	3.07 / 2.22
4. Routinizing	.77 / .87	1.00 / 1.00	3.20 / 6.00	1.76 / 4.11
5. Rationing	.83 / .82	1.00 / 1.00	4.83 / 7.00	2.63 / 3.89

Table 7 Correlations between coping scales

Way of coping	1	2	3	4	6
1. Working overtime	1				
2. Time management	.23** / .21**	1			
3. Priority setting	.08 / -.03	-.02 / -.02	1		
4. Routinizing	-.09 / -.18*	-.26** / -.40**	.08 / -.03	1	
5. Rationing	.25** / .14*	-.17* / -.01	.23** / .24*	.21** / -.10*	1

5 Results of construct validity tests

We have now constructed the initial scales for coping during public service delivery. Next, we will investigate the validity of this scale by examining its theoretical and empirical relationships with other concepts. If the relationships between the concepts are in line with those suggested by the theory, we can be more confident that we have truly measured policy alienation: a process known as construct validity (DeVellis, 2003). We examine the relationship of policy alienation with a potential antecedent (prosocial motivation, Grant, 2008) and a potential effect (engagement, Schaufeli & Bakker, 2003). Table 7 shows that these concepts are related to policy alienation as predicted. This is discussed below.

Table 8 Correlations between ways of coping with prosocial motivation and engagement

<i>Concept</i>	<i>Working overtime</i>	<i>Time management</i>	<i>Priority setting</i>	<i>Routinizing</i>	<i>Rationing</i>
Prosocial motivation	n.s. / .21**	.21** / .26**	n.s. / n.s.	-.15* / -.24**	-.20* / .05
Engagement	n.s. / n.s.	.26** / .20**	n.s. / n.s.	-.16* / -.24**	-.31** / .31

Note * $p < .05$ ** $p < .01$ n.s. = non-significant

6 Conclusions and discussion

[To be written]

References

- Anagnostopoulos, D. (2003). The new accountability, student failure, and teachers' work in urban high schools. *Educational Policy*, 17(3), 291-316.
- Ayers, T. S., Sandier, I. N., West, S. G., & Roosa, M. W. (1996). A dispositional and situational assessment of children's coping: Testing alternative models of coping. *Journal of Personality*, 64(4), 923-958.
- Barling, J., Rogers, A. G., & Kelloway, E. K. (2001). Behind closed doors: In-home workers' experience of sexual harassment and workplace violence. *Journal of Occupational Health Psychology*, 6(3), 255-269.
- Bartels, K. P. (2013). Public encounters: The history and future of face-to-face contact between public professionals and citizens. *Public Administration*, 91(2), 469-483.
- Bekkers, V., Moody, R., & Edwards, A. (2011). Micro-Mobilization, social media and coping strategies: Some Dutch experiences. *Policy & Internet*, 3(4), 1-29.
- Breuer, J., & Freud, S. (1955). In James Strachey (Ed.), *Studies on hysteria. the standard edition of the complete psychological works of Sigmund Freud*, vol. 2. London: Hogarth Press.
- Brodkin, E. Z. (1997). Inside the welfare contract: Discretion and accountability in state welfare administration. *The Social Service Review*, 71(1), 1-33.
- Brown, M. K. (1988). *Working the street: Police discretion and the dilemmas of reform*. New York: Russell Sage Foundation.
- Brown, T. A. (2006). *Confirmatory factor analysis for applied research*. London: The Guilford Press.
- Buffat, A. (2013). *Street-Level Bureaucracy and E-Government*. *Public Management Review*, (ahead-of-print), 1-13.
- DeVellis, R. F. (2003). *Scale development: Theory and applications*. Thousand Oaks: Sage.

- Dubois, V. (2010). *The bureaucrat and the poor: Encounters in french welfare offices*. Surrey: Ashgate Publishing.
- Folkman, S., & Lazarus, R. S. (1980). An analysis of coping in a middle-aged community sample. *Journal of Health and Social Behavior*, 21(3), 219-239.
- Frykberg, E. R. (2002). Medical management of disasters and mass casualties from terrorist bombings: how can we cope?. *Journal of Trauma-Injury, Infection, and Critical Care*, 53(2), 201-212.
- Gofen, A. (2013). Mind the gap: Dimensions and influence of street-level divergence. *Journal of Public Administration Research and Theory*, mut037.
- Goodsell, C. T. (1981). Looking once again at human service bureaucracy. *The Journal of Politics*, 43(03), 763.
- Grant, A. M. (2008). Does intrinsic motivation fuel the prosocial fire? Motivational synergy in predicting persistence, performance, and productivity. *Journal of Applied Psychology*, 93(1), 48.
- Hagen, J. L., & Owens-Manley, J. (2002). Issues in implementing TANF in New York: The perspective of frontline workers. *Social Work*, 47(2), 171-182.
- Handler, J. (1986). *The conditions of discretion*. New York: Russell Sage Foundation.
- Handler, J. (1986). *The conditions of discretion*. New York: Russell Sage Foundation.
- Harrits, G. S., & Møller, M. Ø. (2014). Prevention at the Front Line: How home nurses, pedagogues, and teachers transform public worry into decisions on special efforts. *Public Management Review*, 16(4), 447-480.
- Herscovis, M. S., & Reich, T. C. (2013). Integrating workplace aggression research: Relational, contextual, and method considerations. *Journal of Organizational Behavior*, 34(S1), S26-S42.
- Hill, M., & Hupe, P. (2009). *Implementing public policy: An introduction to the study of operational governance*. London: SAGE Publications.
- Hinkin, T. R. (1998). A brief tutorial on the development of measures for use in survey questionnaires. *Organizational Research Methods*, 1, 104-121.

- Horney, K. (1945). *Our inner conflicts: A constructive theory of neurosis*. New York: W.W. Norton & Company.
- Hupe, P., & Buffat, A. (2014). A Public Service Gap: Capturing contexts in a comparative approach of street-level bureaucracy. *Public Management Review*, 16(4), 548-569.
- Kelly, M. (1994). Theories of justice and street-level discretion. *Journal of Public Administration Research and Theory*, 4(2), 119-140.
- Knight, P. T., & Trowler, P. R. (2000). Department-level cultures and the improvement of learning and teaching. *Studies in Higher Education*, 25(1), 69-83.
- Križ, K., & Skivenes, M. (2014). Street-level policy aims of child welfare workers in England, Norway and the United States: An exploratory study. *Children and Youth Services Review*, 4. 71-78.
- Lazarus, R. S. (1966). *Psychological stress and the coping process*. New York: McGraw-Hill.
- Lipsky, M. (1980). *Street-level bureaucracy: Dilemmas of the individual in public services*. New York: Russell Sage Foundation.
- Mastrofski, S. D., Reisig, M. D., & McCluskey, J. D. (2002). Police disrespect toward the public: An encounter-based analysis. *Criminology*, 40(3), 519-552.
- Maynard-Moody, S. W., & Musheno, M. C. (2003). *Cops, teachers, counselors: Stories from the front lines of public service*. Michigan: University of Michigan Press.
- Maynard-Moody, S., & Musheno, M. (2012). Social equities and inequities in practice: Street-Level workers as agents and pragmatists. *Public Administration Review*, 72(s1), 16-23.
- Muthén, L., & Muthén, B. (1998-2010). *Mplus user's guide (Sixth ed.)*. Los Angeles, CA: Muthén & Muthén.
- Pandey, S. K., & Scott, P. G. (2002). Red tape: A review and assessment of concepts and measures. *Journal of Public Administration Research and Theory*, 12(4), 553-580.

- Peeters, M. A., & Rutte, C. G. (2005). Time management behavior as a moderator for the job demand-control interaction. *Journal of Occupational Health Psychology, 10*(1), 64.
- Perry, J. L. (1996). Measuring public service motivation: An assessment of construct reliability and validity. *Journal of public administration research and theory, 6*(1), 5-22.
- Sager, F., Thomann, E., Zollinger, C., van, d. H., & Mavrot, C. (2014). Street-level bureaucrats and new modes of governance: How conflicting roles affect the implementation of the swiss ordinance on veterinary medicinal products. *Public Management Review, 16*(4), 1-22.
- Schaufeli, W. B., & Bakker, A. B. (2003). *Utrecht work engagement scale: Preliminary manual*. Occupational Health Psychology Unit, Utrecht University, Utrecht.
- Schaufeli, W. B., Bakker, A. B., Van der Heijden, Frank MMA, & Prins, J. T. (2009). Workaholism, burnout and well-being among junior doctors: The mediating role of role conflict. *Work & Stress, 23*(2), 155-172.
- Sheehan, D., Everly Jr, G., & Langlieb, A. (2004). Current best practices coping with major critical incidents. *FBI law enforcement bulletin, 73*(9), 1-13.
- Skinner, E. A., Edge, K., Altman, J., & Sherwood, H. (2003). Searching for the structure of coping: A review and critique of category systems for classifying ways of coping. *Psychological Bulletin, 129*(2), 216-269.
- Sonnentag, S., & Jelden, S. (2009). Job stressors and the pursuit of sport activities: A day-level perspective. *Journal of Occupational Health Psychology, 14*(2), 165-181.
- Sveinbjornsdottir, S., & Thorsteinsson, E. B. (2008). Adolescent coping scales: A critical psychometric review. *Scandinavian journal of psychology, 49*(6), 533-548.
- Triandafyllidou, A. (2003). Immigration policy implementation in Italy: Organisational culture, identity processes and labour market control. *Journal of Ethnic and Migration Studies, 29*(2), 257-297.

- Tummers, L.G. (2012). Policy alienation of public professionals: The construct and its measurement. *Public Administration Review*, 72(4), 516-525.
- Tummers, L.G., & Rocco, P. (2015). Serving Clients When the Server Crashes: How Frontline Workers Cope with E-Government Challenges. *Public Administration Review*.
- Tummers, L.G., Bekkers, V.J.J.M., Vink, E. & Musheno, M. (2015). Coping during public service delivery: A conceptualization and systematic review of the literature. *Journal of Public Administration, Research & Theory*.
- Tummers, L.G., Vermeeren, B., Steijn, A.J., & Bekkers, V. (2012). Public professionals and policy implementation: Conceptualizing and measuring three types of role conflicts. *Public Management Review*, 14(8), 1041-1059.
- Winter, S. C. (2003). Political control, street-level bureaucrats and information asymmetry in regulatory and social policies. *Annual Meeting of the Association for Policy Analysis and Management* held in Washington DC, 6-8.

Appendix: Measurement instrument for ways of coping

Template words are underlined. Templates allow researchers to adapt items to their specific situation by replacing general phrases with more specific ones: ones that fit the context of their research. For example, instead of using the terms 'client', you can rephrase this to suit the specific situation, for example with 'student' in school settings.

R=Reversed score

Strategy 1 – Working overtime

1. I work extra time to be able to fulfill my clients' needs
2. I limit my breaks to keep up with work for clients
3. I work on my days off to serve my clients
4. I skip after-work personal activities to work for clients

Strategy 2 – Time management

1. I look for ways to increase the efficiency with which I perform my client-related activities
2. I evaluate my activities with clients to analyze how I can do more in less time
3. I review my daily activities with clients to see where I am wasting time
4. I thoroughly plan my daily activities with clients beforehand
5. During the day, I evaluate how well I am following my goals for client-related activities

Strategy 3 – Priority setting

1. I give priority to clients who will benefit the most from my help
2. I devote my attention to clients who especially need it
3. I spend more time with clients who will benefit hugely from my help than with others
4. I especially help clients to whom I can make the biggest difference

5. The limited time I have goes to clients who are heavily dependent on me

Strategy 4 – Routinizing

1. I develop specific, tailor-made, solutions for clients (R)
2. I adjust standard work methods to fit the specific problems of clients (R)
3. I gather extra information to understand the uniqueness of client's problems (R)
4. I help clients in a way that really fits their specific needs (R)
5. When working with clients, I fully take into account their personal situation (R)

Strategy 5 – Rationing services

1. The circumstances in my job require me to ration my time with clients
2. I spend less time with clients than would be optimal for them
3. Because of my limited time available I cannot help clients to the fullest
4. I am unable to give clients the attention they deserve