

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

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Abstract

Frontline workers, such as teachers and social workers, often experience stress when delivering public services to citizens. The literature provides numerous perspectives on how workers cope with stress, ranging from working overtime for clients to quickly disposing of clients who they regard as unrealistic or otherwise unworthy of attention.. 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 six important ways of coping during public service delivery, such as working overtime, prioritizing, routinizing and rationing. The scales were reviewed by interviewing 18 experts. The scales were then administered in a pilot survey among teachers (n=27), two surveys among social workers (n=200, n=250), and a large survey among teachers (n=1000) (surveys in progress). A reliable and valid measurement instrument for coping during public service delivery can ultimately help in understanding and enhancing performance and well-being at the frontline.

Keywords

Frontline work, Street-level bureaucracy, Coping, Scale development, measurement instrument

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, Lipsky (1980; 2010) adapted the concept of 'coping', thereby drawing upon the work of the clinical psychologist 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 (2014) 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. 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. Cross-national qualitative studies have also been carried out to analyze the value of these ways of coping. 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? First, most of the work completed to date is not systematic in the way they record coping practices nor has there been a strong tendency to build a body of knowledge based on an accumulation and analysis of repertoires of practice. Both systematic qualitative and quantitative studies are needed along with the triangulation of the two. We are engaged in such a study, one that is also cross-national. Here, we report on our quantitative measurement instrument which can provide an index of practices as well as the frequencies of their use across cohorts of workers. Furthermore, this measurement instrument can be beneficial when analyzing public policies and frontline work when applying a comparative, multi-level perspective. For instance, it can be used to analyze public service gaps and the effects of institutional variety across countries, and how this effects coping behavior at the work floor level (Hupe & Buffat, 2014).

When developing this measurement instrument, we follow the protocols of proper scale development, as laid out by psychometric experts such as DeVellis (2003) and Hinkin (1998). 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 developed few 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,

governmental officials, professional associations, and worker unions can use these measurement instruments to analyze which ways of coping frontline workers use, reasons and effects. 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 insufficient organizational resources (see Lipsky, 1980; Buffat, 2013) 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 manager. 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>Aggression towards clients, 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. (2004) 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, 2014).

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	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	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
Aggression	Worker confronting clients in a hostile manner	A medical doctor becoming easily angered with patients after working a 24-hour shift

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. Somewhat related to routinizing is the way of coping '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”*. The last way of coping during public service delivery we identified is ‘aggression’. Frontline workers often experience aggression from clients (Barling et al., 2001). Recent studies note that aggression is relational, and that aggression from the client can result in a similar reaction from the frontline worker (Hershcovis & Reich, 2013). However, there are also studies which show that frontline workers become aggressive as in this way they could relieve their own frustrations. Brown (1988:143-144) describes two US police officer who go to the park “to check out the lovers” by pulling alongside a car, jumping out of the patrol car and getting the occupants out to check their identification. Hence, aggression is not always evoked by the clients, but can also come from other sources of stress (see also Mastrofski, Reisig & McCluskey, 2002).

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, 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.

3.2 Sampling and response rate

The final pool of items was tested using various samples (in progress):

- A sample of 250 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 ways of coping were measured via the employees, while the performance of the employees was measured via the supervisors of these employees.
- A sample of 200 school social workers, drawn from the California Association of School Social Workers
- A sample of 1.000 teachers, drawn from the National Education of Education in the United States

4 Results of exploratory and confirmatory factor analyses

[To be written after data has been collected]

5 Results of construct validity tests

[To be written after data has been collected]

6 Conclusions and discussion

[To be written after data has been collected]

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Appendix: Measurement instrument for ways of coping

[Note: work in progress]

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
5. I work for clients even when I am on vacation
6. I interrupt my breaks to respond to clients' needs

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
6. I use my experience to learn how I can be (even) more efficient when working with clients

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 other clients
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
6. When I can make a big impact in the clients' life, I 'go the extra mile' for them

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)
6. I treat all clients similarly, even if I know some need more specific help

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
5. I only do what is strictly required when working with clients, nothing more
6. I tell clients that I only have limited time for them

Strategy 6 – Becoming aggressive

1. I lose my patience when working with clients
2. I rather easily become irritated when interacting with clients
3. I quite easily lose my temper with clients
4. I am pretty impatient with clients
5. I become easily angered at clients
6. Even when clients become aggressive, I stay calm (R)