

THE REPERTORY GRID TECHNIQUE IN A RESEARCH-INTERVENTION ON WORK-RELATED STRESS

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The repertory grid technique proposed by Kelly (1955) has been used in a research-intervention on work-related stress in order to investigate the personal and professional experiences of a group of health care workers. This group was composed of 81 senior physicians, nurses and managers with coordinating responsibilities, all of whom worked as part of a large health care organization in northern Italy. The survey was based on the strong points and critical aspects that had emerged in a previous evaluation of work-related stress among the employees of the same health organization. Findings provide useful indications for further research-intervention initiatives, as well as formative counseling at both group and individual levels. The results also highlight the modernity, flexibility and usefulness of the repertory grid technique in organizational studies.

Key words: Repertory grid; Work-related stress; Organizational well-being; Research-intervention; Health

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Introduction

The present research has been conducted within the theoretical-methodological framework of the evaluation and prevention of work-related stress risk with regard to organizational well-being. In the studies reported in international literature, work stress is generally evaluated on the basis of workers' self-evaluation (namely subjective measures or self-reports), using questionnaires, concerning both sources and consequences of stress in terms of psycho-physical strain (Demerouti, Bakker, & Bulters, 2004; Falco, Kravina, et al., 2012; Johns, 2011; Jones, Wells, Gao, Cassidy, & Davie, 2013; Sonnentag, Kuttler, & Fritz, 2010). However subjective measures provided by workers cannot be ignored, considering the individual nature of both the perception

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of the sources of stress and the consequences in terms of strain (Falco, Girardi, et al., 2012; Falco, Piccirelli, Girardi, Dal Corso, & De Carlo, 2013; Luthans, Avolio, Avey, & Norman, 2007; Siu et al., 2009).

Evaluation and prevention of the risk of work-related stress — just as the implementation of positive managerial behaviors — and the development of performance involve a constant and shared activity of reflection as well as theoretical and empirical analysis regarding the organization and current and potential models of behavior. Indeed, actions of managers must be aimed at what is most useful and appropriate for the specific context in which they operate, in the short/medium term, and at the different levels of responsibility (Benevene & Cortini, 2010; Gurt, Schwennen, & Elke, 2011). The critical aspects, and consequently the elements which determine success, must be identified using specific instruments, that may range from interviews — of a clinical and transformational nature — to questionnaires (standardized or not), focus groups, structured interviews, observations of behavior. The extent of the involvement of the interlocutors should always be taken into account. Under these circumstances, a valid combination of *research* methods should be adopted, in the perspective of *action*, namely the results expected and those actually obtained. Such a procedure should be devised in order to provide a constant and systematic evaluation of the initiatives being used, in order to decide whether or not they should be continued, integrated, strengthened, or, if necessary, suspended.

In the light of what has already been stated, we considered it useful for a more detailed investigation into the subjective aspects to refer to the theory of personal constructs proposed by Kelly (1955) and to the repertory grid theory proposed by the same author. According to Kelly, "there are various ways in which the word is construed. Some of them are undoubtedly better than others. They are better from our human point of view because they support more precise and more accurate predictions about more events" (pp. 14-15). The basic premise of his philosophical position, which he defines "constructive alternativism," is that every person has some available "alternatives" with which s/he can give meaning to him/herself and to the world that surrounds him/her, looking at it from his/her own subjective point of view. For every person it is always possible to reach a change: "no one needs to paint himself into a corner; no one needs to be completely hemmed in by circumstances; no one needs to be the victim of his biography" (p. 15). In line with the man-the-scientist metaphor, the behavior becomes, in itself, an experiment: to verify how appropriate or not one's own constructs are, every person — often unconsciously — puts them to the test, through concrete behaviors; learning is equivalent to personally experiencing them (Epting, 1984).

In Kelly's elaboration, the repertory grid is a technique used to explore the individual ways of constructing the world. This technique, although requiring considerable time and effort on the part of the interviewee, makes it possible to obtain lots of information which has the advantage of being proposed by the person him/herself and not predefined by the researcher, as happens in the case of tests, inventories or questionnaires. In this way a person is helped to consider his/her own system of construct elaboration which can be analyzed both through qualitative and quantitative methods (Fransella & Dalton, 2000).

The repertory grid technique was born and is used primarily in the field of clinical psychology and research (Fransella, Bell, & Bannister, 2004), but today is increasingly applied in social and organizational psychology and in other disciplines, as shown by the work by Walker and Winter (2007) and by the recent review by Saúl et al. (2012).



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AIMS OF THE PAPER

The aim of the present paper is to explore — in a cognitive-constructivist perspective — the personal and professional experiences of a group of health care professionals involved in a study on the sources and effects of work-related stress within the organization they belong to. By using the repertory grid technique, we proposed in particular to shed light on how, globally and individually they attribute meaning to themselves and to others, within both the personal and professional context in which they operate in their daily lives.

METHOD

Participants

Participants were 81 senior physicians, nurses and managers with coordinating responsibilities, all of whom worked in a large health care organization in a region of northern Italy. They were subdivided into small groups according to their professional areas (hospital, prevention and local health centers, social services, psychiatric units, administration and others), as suggested by the organizational management.

Instruments and Procedure

The group of participants was put together within a research-intervention activity on the theme of work-related stress. For this activity we used the report containing the overall results of the Work-related stress risk evaluation test with regard to organizational well-being, Qu-Bo (De Carlo, Capozza, & Falco, 2008), previously administered to the 1,801 workers of the same health care organization (including the 81 participants). The contents of the report were a valuable basis for the participants to share the theme of work-related stress and for the researchers to build the repertory grid proposed to the participants.

The phases of the repertory grid are described below.

- Identification of the roles and relationships meaningful for the participants, both at a personal/private and professional level ("elements"), following the indications by Kelly (1955) and using the main results that had emerged from evaluation of the work-related stress risk. Ten elements were used: "Myself alone," "Myself with my family," "Myself with a friend" (personal/private area), and "Myself at work," "Myself and my ideal job," "Myself with a colleague I like," "Myself with a colleague I don't like," "Myself with a coworker," "Myself with a supervisor," "Myself with a patient" (professional area).
- Elicitation of the bipolar constructs using the dyadic method, through pair comparisons, based on the diversity criterion of the elements identified in the earlier phase. The instructions given to the participants, who had to complete this comparison, were to pair the 10 elements described above along the diagonal line in the grid obtained by pairing each element with the next, on the basis of the predefined order. Evaluation of the degree of applicability of each bipolar construct to each element using a 7-point scale, where "1," "2," and "3" indicate the pole defined by



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Kelly (1955) as the "emerging" pole and "5," "6," and "7" its opposite or "contrast" pole; "4" is the neutral point.

In the light of the specific context, after a discussion concerning the objectives of the research-intervention and a brief introduction to Kelly's personal constructs theory, the repertory grid was administered in groups.

DATA ANALYSIS AND RESULTS

The constructs were classified by two independent judges into the six categories (moral, emotional, relational, personal, intellectual/operational, values and interests) proposed by Feixas, Pizzonia, and Dada (2010). The level of agreement between the two judges, as measured by the *K* index of Cohen (1988), was .95. In the few cases of doubt, two judges were asked to reach a common solution. A percentage of constructs in the "personal" area, equal to 31.4% of the total, emerged. The constructs of the "emotional" area were 26% of the total area, and the "relational" constructs were 22.2% of the total. The "moral" area followed with 16.6% of the total. Lastly, the "intellectual/operational" area represented the 2.3% of the total and the area of the "values and interests" occupied only 1.6% of the total.

Multidimensional scaling (ALSCAL procedure, EUCLID method) was applied to the "Super Grid" 810×10 (810 constructs elicited from all 81 participants \times 10 elements).

The bidimensional solution, that is with reference to the "Super Grid," showed an overall value of stress equal to .091, which indicates a satisfactory fit (i.e., values of stress between .106 and .200 indicate a low fit, between .056 and .105 a satisfactory fit, between .026 and .055 a good fit, between .001 and .025 an excellent fit, and 0 a perfect fit; Kruskal, 1964).

An examination of Figure 1, in which the distances between the elements on the two dimensions obtained starting from the "Super Grid" are represented, shows that: the first dimension is characterized by the contrast between the elements "Myself with a colleague I don't like" and "Myself with a supervisor" (positive numerical pole), and the elements "Myself with my family," "Myself with a friend," "Myself alone," and "Myself and my ideal job" (negative numerical pole); the second dimension is characterized by the contrast between the elements "Myself at work" and "Myself with a patient" (positive numerical pole), and the elements "Myself alone" and "Myself with a colleague I don't like" (negative numerical pole). The remaining two elements are not far from the origin of the axes, but can however be associated to one dimension rather than the other: the element "Myself with a coworker" is closer to the positive pole of the second dimension. The most isolated elements in the configuration, namely the ones most distant from all the others, are "Myself alone" and "Myself with a colleague I don't like."

This pattern of results suggests that the meanings that can be attributed to the two dimensions are: for Dimension 1, "Commitment to relations," to be articulated into personal relations (negative numerical pole) and professional relations (positive numerical pole); for Dimension 2, "Modes of relations," to be articulated into modes of integration with others, for the positive pole, and differentiation from others, for the negative pole.

We reached these conclusions by observing the configuration of the elements on the bidimensional field. In fact, in the left hand quadrants, the elements involve semantics primarily



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regarding the sphere of personal/private relations or experiences. In the right hand quadrants, the semantics of the elements seem to be more pertinent to the sphere of professional relations. In the higher quadrants, the semantics of the elements seem to be connected more to integrative modes of relations (Myself with somebody), both in professional and personal/private terms. The lower quadrants can be more easily interpreted with semantics — and hence modes of — differentiation: active toward a disliked colleague; reflective and internalized toward oneself (Myself alone).

Moreover, Dimension 2 also seems to capture two superordinate aspects of the values, not to be underestimated. For the higher quadrants the value of commitment to service, both in the professional and in the personal/private sphere, seems to emerge. For the lower quadrants we can see the value of consideration and regard of differences, both in the private (Myself alone) and in the professional sphere (Myself with a colleague I don't like). Given the reciprocal distances from the other elements, it seems that at the moment this value is experienced more on the problematic side than as a real opportunity for development. It appears, in fact, that being alone is an opportunity which it is not yet possible to handle well, on the same level as a relationship with a colleague marked by a certain degree of dislike and not further elaborated in more rational terms.

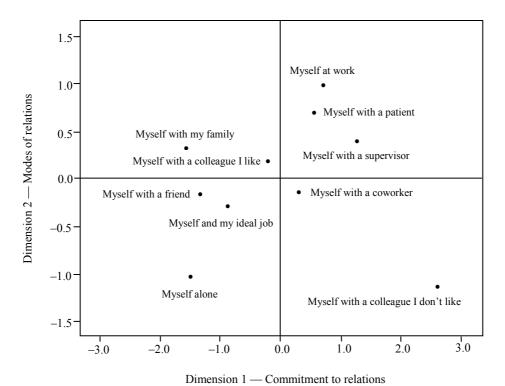


FIGURE 1 Multidimensional scaling "Super Grid": Configuration of the elements on the bidimensional field.

Hierarchical cluster analysis was also applied to the 81 separate grids, each regarding one participant, using Ward's method, in order to investigate whether there are common patterns in the evaluation of the 10 elements. Prior to this, for each grid, the data of the 10 constructs was aggregated using the mean.



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Figure 2 shows the presence of three separate grid clusters: the first is composed by 31 grids, the second by 35 grids, and the third by 15 grids.

To understand what characterizes each cluster, namely what is shared by the grids which belong to the same cluster, we examined the average scores of the clusters on the 10 elements used to generate the clusters themselves. To show the distinctive elements more clearly, instead of the original scores, we calculated the z scores, namely the variance from the mean. Examination of the group profiles graph reported below shows that:

- the first cluster presents positive peaks (z > 0.50) for all the elements except "Myself with a colleague I don't like" and thus we can call it the "Uncertain" group (the average scores on the 10 elements are close to 4, which is the central neutral value, evidencing therefore a certain degree of uncertainty in evaluating the different elements, even though they are interpreted using personal constructs);
- the second cluster does not present peaks, neither positive nor negative, for any of the elements except "Myself with a colleague I don't like" and hence we can call it the "Prudent" group (the average scores on the 10 elements are close to 3, demonstrating therefore a style of evaluation characterized by nuances);
- the third cluster presents negative peaks (z < -0.50) for all the elements except "Myself with a colleague I don't like" and we can therefore call it the "Decisive" group (the average scores on the 10 elements are close to 2, showing a tendency to more clear cut evaluations).

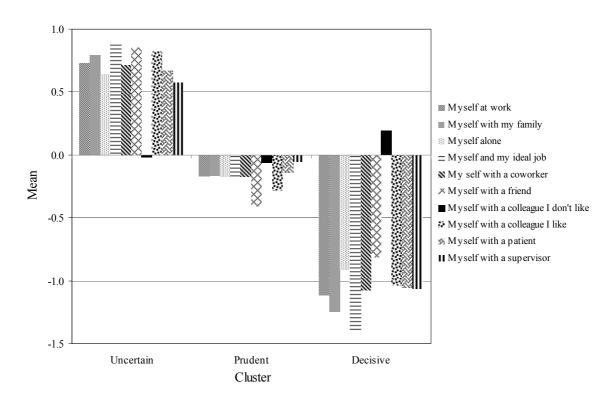


FIGURE 2 Means of the z scores of each of the elements in the three emerging clusters.

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Analysis of variance conducted on the evaluations of the 10 elements with cluster as between factor (Cluster 1, Cluster 2, Cluster 3) showed a significant effect of the factor cluster, with strong effect size ("small" effect size if omega squared between .01 and .05; "medium" effect size if omega squared between .06 and .14; "large" effect size if omega squared ≥ .15; Cohen, 1988) on all of the elements except "Myself with a colleague I don't like," for which the three clusters were not different.

Post-hoc analysis using Scheffe's method showed that Cluster 1 presented higher scores than Cluster 2 on all elements; Cluster 2 presented higher scores than Cluster 3 on all elements except "Myself with a friend," for which the two clusters had similar scores (Table 1).

An analysis of the 81 single grids was performed using iGridstat software (Bell, 2009), which illustrated the value of the following indices related to the constructs: the intraclass index, which measures how they differ among themselves, the average root mean square (RMS) correlation, that is the average of the RMS values relative to all the constructs of the single grid, and the percentage of the use of extreme and uncertain scores. We calculated the means of these three indexes for all the 81 grids. The mean of the intraclass index of the constructs was .22, a value that indicates a poor differentiation between constructs and a low cognitive complexity. The mean of average RMS across all grids was equal to .51 (SD = .11), showing a construct structure that is somewhat integrated.

These findings, that is low differentiation between constructs and high integration, may lead to expectations that are difficult to modify, because they are anchored on a single point of view that allows few alternative interpretations of the experience and thus few possibilities of "spontaneous" change.

After analyzing each of the 81 individual grids using iGridstat software, we then considered one grid (repertory grid 3), specifically chosen for high use of extreme and central rating values. These values were greater than those found in the elements cluster. This grid showed means of construct ratings frequently lower than 4 (Table 2).

This may represent a valuable piece of information to help trainers to understand the relatively reduced resources and possibility of change. Moreover, comparing the total mean percentages of extreme values (1 and 7), equal to 32.88% (SD=15.96) — which is already higher than the expected standards (28.6% total) — to the mean presence of neutral values (4), indicator of uncertainty, (M=14.84%, SD=9.47) — which is instead close to the expected standards — repertory grid 3 presented much higher percentages of extreme and uncertain scores, as can be seen in Table 3.

The tendency to use extreme values involves elements that may present greater difficulties for the person, such as "Myself alone" and "Myself and my ideal job" (Table 4). These elements showed average rating values that represent greater uncertainty and difficulty in comparison to others. A proposal of specific formative counseling could concentrate on exploring, together with the person, the needs in moments of solitude for reflection, as well as focusing on the values and ideal aspects which seem to be unclear and therefore weak as a reference for everyday work activities. These proposals could become valuable occasions for support, potentially capable of preventing disorientation and burnout.

Descriptive statistics of the scores assigned to each element (original and transformed into z scores) within each cluster and ANOVA results

	Clus	Cluster 1 —	Uncertain	ain	Clu	Cluster 2 — Prudent	- Prude	nt	Clus	iter 3 —	Cluster 3 — Decisive	ve			Omega squared
Element	Origina	Original score	z score		Original score	l score	z score	ıre	Original score	l score	z score		F(2,78)	<i>d</i>	(ω^2)
	M	QS	M	SD	M	SD	M	SD	M	SD	M	SD			
Myself at work	3.51	98.0	0.73	0.97	2.71	0.56	-0.17	0.63	1.87	0.35	-1.11	0.40	32.00	< .001	.434
Myself with my family	3.66	0.65	0.79	0.77	2.85	0.51	-0.17	09.0	1.94	0.55	-1.25	99.0	47.14	< .001	.533
Myselfalone	3.76	0.81	0.64	0.91	3.03	0.64	-0.18	0.72	2.37	0.81	-0.91	06.0	19.04	< .001	308
Myself and my ideal job	4.02	0.55	0.87	0.57	3.02	0.58	-0.17	0.61	1.85	0.48	-1.40	0.51	80.85	< .001	.663
Myself with a coworker	3.80	0.79	0.72	0.97	3.08	0.47	-0.17	0.57	2.34	0.53	-1.08	0.65	29.44	< .001	.413
Myself with a friend	4.06	0.84	0.85	0.95	2.96	0.44	-0.41	0.50	2.60	0.58	-0.81	99.0	35.44	< .001	.460
Myself with a colleague I don't like	4.04	0.78	-0.02	1.04	4.01	0.61	90.0-	0.81	4.20	1.01	0.19	1.33	0.34	.716	017
Myself with a colleague I like	4.04	08.0	0.82	0.88	3.04		-0.28	0.58	2.35		-1.04	0.64		< .001	.479
Myself with a patient	3.92	0.94	0.67	0.95	3.13	89.0	-0.14	69.0	2.22	0.61	-1.06	0.62	25.08	< .001	.373
Myself with a supervisor	4 01	1.05	0.57	1 01	3 36	0.71	500	890	2 31	090	_1.06	990	, 10.00	/ 001	320



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TABLE 2
Repertory grid 3: Construct information

Mean	SD	% Extreme	% Midpoint		
4.90	1.64	30	20	1	Formalism/Freedom to act
5.10	1.92	40	20	2	Reflective/Open to dialogue
1.80	1.25	70	20	3	Initiative/Immobility
1.30	0.90	90	10	4	Openness/Closure
3.40	1.80	40	60	5	Familiarity/Less exposure of personal aspects
1.90	1.92	90	10	6	Time/Reduced availability
1.90	1.92	90	10	7	Time/Limited availability
1.20	0.60	90	0	8	Hospitality/Detachment
1.80	1.40	70	10	9	Comprehension/Not open to discussion
1.40	0.92	80	10	10	Adaptability/Rigidity
2.47	1.43	69.00	17.00		Average of statistics
1.39	0.47	22.56	15.52		Standard deviation of statistics

TABLE 3
Repertory grid 3: Details of extreme and midpoint ratings

	Value	Frequency	Percentage
Maximum	7	9	9.00
Minimum	1	60	60.00
All extreme			69.00
Midpoint	4	17	17.00

TABLE 4
Repertory grid 3: Element information

Mean	SD	% Extreme	% Midpoint		
2.40	2.24	80	10	1	Myself at work
2.20	2.40	100	0	2	Myself with my family
3.30	2.61	80	10	3	Myself alone
3.70	1.62	30	70	4	Myself and my ideal job
2.10	1.92	80	10	5	Myself with a coworker
2.10	2.21	90	0	6	Myself with a friend
2.40	1.11	30	20	7	Myself with a colleague I don't like
2.20	1.89	70	10	8	Myself with a colleague I like
2.10	1.76	70	20	9	Myself with a patient
2.20	1.54	60	20	10	Myself with a supervisor
2.47	1.93	69.00	17.00		Average of statistics
0.53	0.43	22.11	19.00		Standard deviation of statistics

Multidimensional scaling (ALSCAL procedure, EUCLID method) was then applied to repertory grid 3, which has the highest number of scores 1, coincident with the lower end of the scale 1-7 (specifically 60%, while 28% was expected, showing an extreme evaluation of reality, a "black and white" pattern of evaluation). The bidimensional solution shows a stress value equal to .043, which represents a good fit (Kruskal, 1964). Compared to the bidimensional solution of the "Super Grid" described above, the person in question seems to be more engaged in labor relations and much less in private ones. "Myself alone," which is likely to be evidence of a positive capacity to be with oneself, lies isolated in the relational mode of integration. "Myself and my ideal job," on the other hand, is isolated in the differentiation mode. Furthermore three elements appear as the most problematic for work commitment: "Myself with a colleague I don't like," "Myself with a supervisor," "Myself at work" (Figure 3). Actions of individual counseling could explore, together with the person, this hypothesis of discomfort. Furthermore, they could reap the possible reasons of ideal difference to be reworked in their implications which are less functional for one's relational well-being. These could then be compared with the meanings of other more integrated styles of relational engagement, as in the family or in friendships. The ability to be alone and to think, if confirmed, could be a strong resource to put in motion a rather rigid system of assessments, enhancing the meanings and values that already seem to drive personal and workrelated well-being.

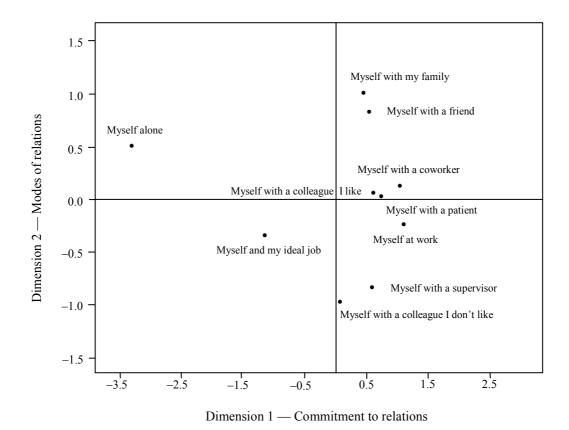


FIGURE 3
Multidimensional scaling repertory grid 3: Configuration of the elements on the bidimensional field.



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As already noted, one of the indices evaluating cognitive complexity of repertory grid 3 is the average RMS. If average RMS is high, then all the constructs are highly intercorrelated, showing how the person constructs his/her own world in a simple, structured, more predictable way. On the other hand, if average RMS is low, constructs are differentiated and the person constructs his/her own environment in a more complex manner. On average, as already stated, the group achieved a RMS equal to .51 (SD = .11). This means that they show a tendency toward an interpretative capacity of the world which is structured, but not so rigid as to be fully predictable. In fact, the participants show a relatively repetitive style of evaluation and, particularly in the third cluster where their choice patterns is somehow "black and white," not inclined to mediation, and characterized by very clear cut, "extreme," evaluations. This is partially in line with the expectations of a managerial role, in which the subjects of the group are called upon to deal with the inevitable complexity of the work environment, without being overwhelmed by it. In the case of repertory grid 3, average RMS is reported in Table 5.

TABLE 5
Repertory grid 3: RMS correlations among constructs

RMS correlation	SD		
.40	0.38	1	Formalism/Freedom to act
.51	0.49	2	Reflective/Open to dialogue
.49	0.46	3	Initiative/Immobility
.51	0.54	4	Openness/Closure
.31	0.35	5	Familiarity/Less exposure of personal aspects
.57	0.58	6	Time/Reduced availability
.57	0.58	7	Time/Limited availability
.27	0.32	8	Hospitality/Detachment
.25	0.29	9	Comprehension/Not open to discussion
.36	0.41	10	Adaptability/Rigidity
.43	0.44		Average of statistics
.12	0.10		Standard deviation of statistics

Note. RMS = root mean square.

DISCUSSION AND CONCLUSION

The results obtained in the present paper offer a useful contribution for the evaluation and prevention of work-related stress. The initiatives should involve both groups and individuals, and should offer listening and support to promote personal and organizational well-being and to prevent possible illness. As known, perception and interpretation of one's role within an organization, and the responsibilities attached to it, are among the stress-generating factors. This is particularly true in the field of health care, which stands out from other professional fields for many reasons. Of these we emphasize the heterogeneity of the different categories of people exposed to risk, the multiplicity of the technological components, the complexity of the formalities which the senior medical staff are responsible for, the high degree of professionalism of the staff involved in supplying health care services and their level of decisional and operational autonomy



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(Mickan & Rodger, 2005). A final aspect, which is particularly relevant, is the intrinsic risk of damage to the person, as often clinical decisions are based on processes of technical scientific mediation represented by the search for the best possible balance between the potential risks of a medical-surgical treatment and the benefits that the patient can receive from it. A further element of potential conflict lies in the wide divergence of value systems among the different groups, professionals or not, operating in the healthcare field (Baxter & Brumfitt, 2008).

The personal construct theory favors the use of the repertory grid technique, from which information on personal constructs can be extracted primarily through qualitative analyses. Extreme caution is suggested in reading multiple grids through quantitative analyses because of the intrinsic risk of considering them as standardized tests or questionnaires. The method we propose, based on the combined use of multiple methods of analysis of the grids, offered useful opportunities for formative interventions. In fact, the overall analysis of the 81 grids using multidimensional scaling allowed us to enhance the data at a group level, restoring above all the perception of superordinate meanings. The results of the cluster analysis evidenced the presence of a specific difficulty with a disliked colleague in all of the three emerging clusters, an extremely valuable piece of information to determine a possible hypothesis of corrective intervention through formation, with the aim of encouraging people to experiment new positive types of relationships using input provided by the evaluations of the liked colleague.

With regard to individual listening and support, an effective level for use of quantitative analyses consists in intercepting individuals who show greater difficulty in adapting, and consequently find it difficult to change. This difficulty may result from an extreme way of evaluating, which may have prevented a more varied and respectful perception of the complexity of the real situations. Indeed, interpreting one's working environment in this way may trigger or fuel conflicts whose roots, even before the interpersonal level, lie in ways of perceiving and evaluating reality which are too "black and white" and do not pay enough attention to shades/nuances. In these particular cases, on the basis of Kelly's transitive diagnosis, a series of formative counseling, of listening and support could be proposed to help people both to widen their range of constructs and to use them in ways that are functionally more balanced, in order to deal with more complex situations with greater clarity and efficacy.

How can this abundance of information be put to use in processes of research-intervention and formative counseling? We must ask ourselves above all which dimensions of meaning — the constructs — are the most powerful, with the highest RMS value, to enhance them as resources of meaning. In the case of the grid taken into consideration, we found the dimensions of time, its availability and reflective dialogue as strong points which could help the person in other dimensions, which at first sight appear weaker, such as the more relational meanings, with exposure to greater risks of rigidity and isolation, and therefore potential factors of risk of conflict at a personal and professional level. Thus, analysis of the single grid turns out to be valuable as a reinforcement of the single person, because it is inserted into superordinate meanings common to the group, and shown up through analyses using multidimensional scaling. In our case, these meanings indicate the relevance of the relations within the professional and personal/private context and the dynamics of integration and differentiation. These dimensions of meaning could become the object of continuous professional formation and they could be the basis for a program of "coupons or vouchers of ethical-value reflection," due to their potential to prevent stress (Horton-Deutsch & Sherwood, 2008; Zwiebel, Goldstein, Manwaring, & Marks, 2008). In fact, stress can



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derive from interpersonal conflict (Almost, Doran, McGillis-Hall, & Laschinger, 2010; De Raeve, Jansen, Van den Brandt, Vasse, & Kant, 2008, 2009), as well as from intrapersonal conflict, probably because of the natural conflict between values involved in everyday work situations, in relations, and when facing important novelties and changes in the professional and personal/private sphere (Bakker, ten Brummelhuis, Prins, & van der Heijden, 2011; Brinkert, 2010; Dijkstra, Beersma, & Evers, 2011; Geurts, Kompier, Roxburgh, & Houtman, 2003; Michel, Kotrba, Mitchelson, Clark, & Baltes, 2011). This possible training, above all, makes it possible to reinforce the sense of individual intervention, enhancing the positive value context which also strengthens the values and meanings of the person (Di Sipio, Falco, Kravina, & De Carlo, 2012). Furthermore, this conscious coordination of values offers a greater safeguard for the efficacy of the intervention, because it reinforces it. This creates a virtuous circle based on the enhancement of what already exists at both an individual and group level.

REFERENCES

- Almost, J., Doran, D. M., McGillis-Hall, L., & Laschinger, H. K. S. (2010). Antecedents and consequences of intra-group conflict among nurses. Journal of Nursing Management, 18(8), 981-992. doi:10.1111/ j.1365-2834.2010.01154.x
- Bakker, A. B., ten Brummelhuis, L. L., Prins, J. T., & van der Heijden, F. M. M. A. (2011). Applying the job demands-resources model to the work-home interface. A study among medical residents and their partners. Journal of Vocational Behavior, 79(1), 170-180. doi:10.1016/j.jvb.2010.12.004
- Baxter, S. K., & Brumfitt, S. M. (2008). Professional differences in interprofessional working. Journal of
- Interprofessional Care, 22(3), 239-251. doi:10.1080/13561820802054655
 Bell, R. C. (2009). iGRIDSTAT: A program for analyzing the data of a repertory grid (Italian Version) [Computer software]. Retrieved from http://www.repgrid.unimelb.edu.au/grids.htm.
- Benevene, P., & Cortini, M. (2010). Human resource strategic management in NPOs. An explorative study on managers. Psychosocial Training, 22(8), 508-521. doi:10.1108/13665621011082873
- Brinkert, R. (2010). A literature review of conflict communication causes, costs, benefits, and interventions in nursing. Journal of Nursing Management, 18(2), 145-156. doi:10.1111/j.1365-2834.2010.01061.x
- Cohen, J. (1988). Statistical power analysis for the behavioral sciences (2nd ed.). Hillsdale, NJ: Erlbaum. De Carlo, N. A., Capozza, D., & Falco, A. (2008). Test di valutazione dello stress lavoro correlato nella prospettiva del benessere organizzativo, Q_u-Bo [Work-related stress risk evaluation test in the perspective of organizational wellbeing, Q_u-Bo]. Milano: FrancoAngeli.

 Demerouti, E., Bakker, A. B., & Bulters, A. J. (2004). The loss spiral of work pressure, work-home inter-
- ference and exhaustion: Reciprocal relations in a three-wave study. Journal of Vocational Behavior, 64(1), 131-149. doi:10.1016/S0001-8791(03)00030-7
- De Raeve, L., Jansen, N. W. H., Van den Brandt, P. A., Vasse, R. M., & Kant, I. J. (2008). Risk factors for interpersonal conflict at work. Scandinavian Journal of Work, Environment and Health, 34(2), 96-106. doi:10.5271/sjweh.1223
- De Raeve, L., Jansen, N. W. H., Van den Brandt, P. A., Vasse, R. M., & Kant, I. J. (2009). Interpersonal conflicts at work as a predictor of self-reported health outcomes and occupational mobility. Occupa-
- tional and Environmental Medicine, 66, 16-22. doi:10.1136/oem.2007.037655 Dijkstra, M. T. M., Beersma, B., & Evers, A. (2011). Reducing conflict-related employee strain: The benefits of an internal locus of control and a problem-solving conflict management strategy. Work & Stress, 25(2), 167-184. doi:10.1080/02688373.2011.593344
- Di Sipio, A., Falco, A., Kravina, L., & De Carlo, N. A. (2012). Positive personal resources and organizational well-being: Resilience, hope, optimism, and self-efficacy in an Italian health care setting. TPM – Testing, Psychometrics, Methodology in Applied Psychology, 19(2), 81-95. doi:10.4473/ TPM19.2.2
- Epting, F. R. (1984). Personal construct counseling and psychoterapy. London: Wiley & Sons Ltd.
- Falco, A., Kravina, L., Girardi, D., Dal Corso, L., Di Sipio, A., & De Carlo, N. A. (2012). The convergence between self and observer ratings of workaholism: A comparison between couples. *TPM Testing*, Psychometrics, Methodology in Applied Psychology, 19(4), 311-224. doi:10.4473/TPM19.4.5 Falco, A., Girardi, D., Sarto, F., Marcuzzo, G., Vianello, L., Magosso, D., et al. (2012). A new scale for
- measuring the psycho-physical effects of work-related stress in a perspective of methods integration. La Medicina del Lavoro, 103(4), 288-308.



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- Falco, A., Piccirelli, A., Girardi, D., Dal Corso, L., & De Carlo, N. A. (2013). Risky riding behavior on two wheels: The role of cognitive, social, and personality variables among young adolescents. *Journal of Safety Research*, 46, 47-57. doi:10.1016/j.jsr.2013.03.002
- Feixas, G., Pizzonia, G., & Dada, G. (2010). Classification system for personal contructs (CSPS): The Italian Version. *Cognitivismo clinico*, 7(2), 191-194.
- Fransella, F., Bell, R., & Bannister, D. (2004). A manual for the repertory grid technique (2nd ed.). Chichester, UK: Wiley & Sons Ltd.
- Fransella, F., & Dalton, P. (2000). *Personal construct counseling in action*. London: Sage Publications Ltd. Geurts, S. A. E., Kompier, M. A. J., Roxburgh, S., & Houtman, I. L. D. (2003). Does work-home interference mediate the relationship between workload and well-being? *Journal of Vocational Behavior*, 63(3), 532-559. doi:10.1016/S0001-8791(02)00025-8
- Gurt, J., Schwennen, C., & Elke, G. (2011). Health-specific leadership: Is there an association between leader consideration for the health of employees and their strain and well-being? *Work & Stress*, 25(2), 108-127. doi:10.1080/02678373.2011.595947
- Horton-Deutsch, S., & Sherwood, G. (2008). Reflection: An educational strategy to develop emotionally competent nurse leaders. *Journal of Nursing Management*, 16(8), 946-954. doi:10.1111/j.1365-2834.2008.00957.x
- Johns, G. (2011). Attendance dynamics at work: The antecedents and correlates of presenteeism, absenteeism, and productivity loss. *Journal of Occupational Health Psychology*, 16(4), 483-500. doi:10.1037/ a0025153
- Jones, M. C., Wells, M., Gao, C., Cassidy, B., & Davie, J. (2013). Work stress and well-being in oncology settings: A multidisciplinary study of health care professionals. *Psycho-Oncology*, 22, 46-53. doi: 10.1002/pon.2055
- Kelly, G. A. (1955). *The psychology of personal constructs* (Vols. 1-2). New York, NY: W. W. Norton & Company Inc.
- Kruskal, J. B. (1964). Multidimensional scaling by optimizing goodness of fit to a nonmetric hypothesis. *Psychometrika*, 29, 1-27.
- Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive Psychological Capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology*, 60, 541-572. doi: 10.1111/j.1744-6570.2007.00083.x
- Michel, J. S., Kotrba, L. M., Mitchelson, J. K., Clark, M. A., & Baltes, B. B. (2011). Antecedents of workfamily conflict: A meta-analytic review. *Journal of Organizational Behavior*, 32(5), 689-725. doi: 10.1002/job.695
- Mickan, S. M., & Rodger, S. A. (2005). Effective health care teams: A model of six characteristics developed from shared perceptions. *Journal of Interprofessional Care*, 19(4), 358-370. doi:10.1080/13561820500165142
- Saúl, L. A., López-Gonzales, M. A., Moreno-Pulido, A., Corbella, S., Compañ, V., & Feixas, G. (2012). Bibliometric review of the repertory grid technique: 1998-2007. *Journal of Constructivist Psychology*, 25, 112-131. doi:10.1080/10720537.2012.651065
- Siu, O., Hui, C. H., Phillips, D. R., Lin, L., Wong, T., & Shi, K. (2009). A study of resiliency among Chinese health care workers: Capacity to cope with workplace stress. *Journal of Research in Personality*, 43, 770-776. doi:10.1016/j.jrp.2009.06.008
- Sonnentag, S., Kuttler, I., & Fritz, C. (2010). Job stressors, emotional exhaustion, and need for recovery: A multi-source study on the benefits of psychological detachment. *Journal of Vocational Behavior*, 76(3), 355-365. doi:10.1016/j.jvb.2009.06.005
- Walker, M. W., & Winter, D. A. (2007). The elaboration of personal construct psychology. *Annual Review of Psychology*, *58*, 453-477. doi:10.1146/annurev.psych.58.110405.085535
- Zwiebel, E., Goldstein, R., Manwaring, J. A., & Marks, M. B. (2008). What sticks: How medical residents and academic health care faculty transfer conflict resolution training from the workshop to the workplace. *Conflict Resolution Quarterly*, 25(3), 321-350. doi:10.1002/crq.211