Career counseling meets motivational interviewing: A sequential analysis of dynamic counselor–client interactions

Florian E. Klonek, Elisabeth Wunderlich, Daniel Spurk, Simone Kauffeld

Technische Universität Braunschweig, Institute of Psychology, Braunschweig, Lower Saxony 38106, Germany
University of Bern, Institut für Psychologie, Abteilung Arbeits- und Organisationspsychologie, 3012, Switzerland

Article info

Article history:
Received 2 November 2015
Received in revised form 27 January 2016
Accepted 29 January 2016
Available online 1 February 2016

Abstract

Motivational Interviewing (MI) is a client-centered communication style with the aim to resolve client ambivalence within a change-related counseling. Its potential benefit for career counseling has been discussed by several scholars but no empirical research has investigated MI in this context so far. The current study used process measures from MI to investigate dynamic interactions within a career counseling intervention. Overall, we analyzed two videotaped sessions of 14 unique counselor–client dyads. Verbal behavior of counselors and clients were coded with two observational coding schemes from MI (one for counselors and one for clients, respectively). Behavior profiles of counselors were compared with benchmarks of good MI. Furthermore, client verbal ambivalence was compared between sessions. Finally, we conducted lag sequential analyses to analyze temporal dynamics between counselor behavior and immediate client verbal responses across N = 6883 behavioral events. Our results showed, first, behavior profiles of career counselors did significantly differ from recommended counseling benchmarks of good MI practice. Second, as assumed on the basis of past studies, client ambivalence decreased across sessions. Third, MI consistent counselor behaviors showed a positive sequential association with client positive career talk, whereas MI inconsistent counselor behaviors showed the reverse pattern. Our results suggest that counseling behaviors recommended from MI are facilitating career interventions. We discuss how trainings in MI could amend career counseling interventions and provide ethical implications when integrating MI into career counseling programs.

© 2016 Elsevier Inc. All rights reserved.

Keywords:
Career counseling
Motivational interviewing
Observational methods
MITI
Sequential analysis

1. Introduction

In the 21st century, a globalizing and digital society provides graduate students who enter the workforce many job possibilities and career paths (Savickas, 2011b). Boundaryless career paths demand high physical and psychological mobility (Sullivan & Arthur, 2006), and changes in careers are harder to foresee. Therefore, educational systems are increasingly providing career counseling for graduate students and young professionals in order to foster positive career development (Perdrix, Stauffer, Masdonati, Massoudi, & Rossier, 2012).

One task of career counseling interventions is to help individuals “by promoting intention and action” (Savickas, 2011b, p. 6). Several meta-analyses (Brown et al., 2003; Whiston, Sexton, & Lasoff, 1998), experimental (Obi, 2015), and longitudinal studies (Perdrix et al., 2012) suggest that career counseling interventions positively impact client outcomes (e.g., choice certainty or
counseling is the giving of career information (Miller & Rollnick, 2013). Furthermore, it remained unclear how intervention ingredients that reduce client ambivalence about change topics, such as Motivational Interviewing (MI, Miller & Rollnick, 2013), are useful within career interventions (Anstiss & Passmore, 2013; Krieshok, Motl, & Rutt, 2011; Stoltz & Young, 2013).

Against this background, the current study investigates a MI based behavioral taxonomy of career counselor and client verbal behavior that contributes to the literature in several ways. First, we introduce and analyze a MI based behavioral taxonomy to study career counselors’ verbal behavior. By this, we shed light on the behavioral profiles of career counselors and how far they resemble a MI approach by contrasting the detected behavior against MI benchmarks. Second, we investigate how career counseling is effective in terms of resolving client ambivalence across counseling sessions. Therefore, we introduce a new operationalization of career ambivalence based on verbal responses of the client. Third, we shed light on the interactional dynamics between counselor behaviors and client responses. By building on empirical evidence from the MI literature and applying advanced statistical methods (i.e., sequential analyses), we analyze how specific counselor behaviors positively or negatively affect clients’ within-session behaviors.

1.1. What is MI and how does it relate to career counseling?

MI is an evidence-based counseling approach that is defined as a “person-centered counseling style for addressing the common problem of ambivalence about change.” (Miller & Rollnick, 2013, p. 29). Since MI is applied across a wide range of behavior domains (e.g., substance abuse counseling, classroom management, parenting; cf., Miller & Rollnick, 2013), there is an increasing call to integrate it with work-related interventions (e.g., Anstiss & Passmore, 2013; Harakas, 2013), especially within career counseling (Krieshok et al., 2011; Stoltz & Young, 2013).

MI is strongly linked with practical recommendations from self-determination theory as it aims to promote client autonomy in decision-making (Klonek, Güntner, Lehmann-Willenbrock, & Kauffeld, 2015; Leffingwell, Neumann, Babitzke, Leedy, & Walters, 2007; Vansteenkiste & Sheldon, 2006). Since it has been argued that career interventions should foster client autonomy (Savickas, Bridlick, & Watkins, 2002), counselors who apply behavioral guidelines from MI should promote career development and transition (Stoltz & Young, 2013). Most importantly, clinical process studies from MI have provided observational measures that allow pinpointing counselor behaviors that are characteristic of a MI (e.g., Lombardi, Button, & Westra, 2014; Magill et al., 2014). These taxonomies provide a solid basis for the analysis of MI behavior within career counseling.

1.2. Status quo: MI specific behavioral taxonomy and career counselor behavior

In their research agenda on how to identify process variables in career counseling, Heppner and Heppner (2003) have noted that “there may be considerable potential to enhance career counseling by expanding counselor and client taxonomies” (p. 445). That is, researchers can develop behavioral counselor profiles and test how far specific counselor behaviors are conducive to positive client responses. Heppner and Heppner (2003) noted that we do not know whether counselors in psychotherapy behave similar to career counselors and recommended to investigate taped sessions as a starting point to answer these questions.

The present study followed their recommendations and applied widely used behavioral coding schemes from MI (cf., Glynn & Moyers, 2012; Moyers, Martin, Manuel, Hendrickson, & Miller, 2005) in order to derive behavioral profiles for career counselors and their clients, respectively. After deriving the behavioral profiles, the behavior frequencies can be contrasted against MI benchmarks in order to give a first impression about the status quo of MI related career counseling behavior. As career counseling and MI show similarities but also dissimilarities we argue that there exists a detectable amount of MI within career counseling, but the level is below proficiency.

From a theoretical point of view, Stoltz and Young (2013, p. 335) have pointed out that “one caveat specific to career counseling is the giving of career information”. The weakness that the authors see is that counselors educate “about career exploration strategies, career assessment tools, and job search techniques” whereas clients are not fully decided about their future career path. This assumption is supported by a study from Mittendorff, den Brok, and Beijard (2010) who coded career conversations between teachers and students and showed that over one third of counselor behaviors encompassed explaining/informing (33%) and giving advice (4%) – both behaviors are not recommended from a MI perspective (Miller & Rollnick, 2013). Similarly, Multon, Ellis-Kalton, Heppner, and Gysbers (2003) coded a sample of 19 in-training career counselors and reported similar results with counselors providing mostly information (35%). The authors also reported that counselors asked overall more closed (17%) than open questions (10%) – a ratio that is not recommended from MI perspectives (Miller & Rollnick, 2013).

These previous studies suggest that career counselors do not necessarily exhibit a behavior profile that is compatible with a sophisticated MI communication style (e.g., talking less than clients, reflecting twice for each question, using complex reflections, asking mostly open questions; Miller, 2000). Such recommendations for MI proficiency have been translated in specific behavioral benchmarks (e.g., Opheim, Andreasson, Eklund, & Prescott, 2009). In sum, because of these previous behavioral studies on career counseling, and because proficiency in MI requires specific training (e.g., de Roten, Zimmermann, Ortega, & Despland, 2013; Klonek & Kauffeld, 2015), we hypothesize the following:

H1. Behavioral profiles of MI untrained career counselors are below recommended MI proficiency benchmarks.
1.3. Does career counseling resolve client ambivalence?

Many clients who seek help in career counseling often present issues of ambivalence (Cardoso, 2012). Ambivalence can constitute client dilemmas, e.g., a desire between two very different professions (technical vs. creative job, cf., “Jean” in Neimeyer, 1992), whether to accept a job promotion or not (cf., “Jon” in Cole, 2012), or other inner conflicts in terms of something that they “want to” but what they “cannot manage” (Gessnitzer, Schulte, & Kauffeld, 2014). Cardoso, Silva, Gonçalves, and Duarte (2014a) present a client who wants to be a doctor but has doubts whether he/she has the appropriate skills to pursue it. Many career counseling approaches have been proposed to resolve this client ambivalence (e.g., Savickas, 2011b; Cardoso, 2012), for instance, by using ladder techniques (e.g., Neimeyer, 1992), feed-backing discrepancies between skills, values, and motives (Gessnitzer et al., 2014), or by using MI (Krieshok et al., 2011; Stoltz & Young, 2013).

However, the empirical evidence that career counseling helps to resolve client ambivalence is only based on single case studies (Cardoso et al., 2014a/b, Neimeyer, 1992; Ribeiro, Bento, Salgado, Stiles, & Gonçalves, 2011) or theoretical arguments (Krieshok et al., 2011; Stoltz & Young, 2013). For example, Cardoso et al. (2014a) have measured ambivalence by coding in-session language, that is, ambivalence was captured in terms of language that frequently shifts between innovative moments (“I realized that being a medicine doctor is what I really want to do”, Cardoso et al., 2014a, p. 14) and then returning to problems (“but I don’t know if I will ever be able to pursue that”, Cardoso et al., 2014a, p. 14). MI conceptualizes ambivalence very similarly: Ambivalence is observable when clients concurrently provide positive statements indicating readiness to change (i.e., “I realized that being a medicine doctor is what I really want to do”) versus negative statements that maintain the status quo (i.e., “...but I don’t know if I will ever be able to pursue that”). Within the research tradition of MI, coding of client language has been applied in several process studies (e.g., Klonek, Lehmann-Willenbrock, & Kauffeld, 2014; Lombardi et al., 2014; Moyers, Martin, Houck, Christopher, & Tonigan, 2009). Coding of client language can help to analyze the process and mechanism of change within career counseling sessions (Heppner & Heppner, 2003). Some authors of MI studies have described vividly how client ambivalence is expressed in counseling sessions in terms of clients who simultaneously switch back and forth (Moyers et al., 2009).

From a MI perspective, ambivalence is resolved as the counselors actively explore pros and cons of change (Miller & Rollnick, 2013). This active self-exploration of career values, motives, and skills is also considered vital within career counseling research (Gessnitzer et al., 2014; Stoltz & Young, 2013). Furthermore, focusing on how client language fosters change acknowledges that “client positions him or herself as be the author of change” (Cardoso, Silva, Gonçalves, & Duarte, 2014b, p. 278). Since several meta-analyses suggest that career counseling positively impacts clients in making career decisions (Brown et al., 2003; Whiston et al., 1998), we predict that client ambivalence should decrease across counseling sessions. Therefore, we hypothesize:

H2. Client ambivalence will decrease across career counseling sessions.

1.4. The interaction between counselor and client: linking counselor behavior to client’s verbal response

While the application of a behavioral taxonomy for counselors and clients can help us to derive counselor-specific behavior profiles or to track client behavior and ambivalence across sessions, it also gives us the possibility to scrutinize the interactional dynamics between counselor and client behaviors (Klonek et al., 2014; Magill et al., 2014; Miller & Rollnick, 2013). Research that investigates interactional dynamics can identify helpful and harmful ingredients in terms of counselor behaviors that are conducive to career decision-making (Heppner & Heppner, 2003; Kirschner et al., 1994). For example, career counselors often provide information to clients about different career path within their sessions, educate about job searching techniques (Stoltz & Young, 2013), or use assessment tools to evaluate career skills (Gessnitzer et al., 2014; Neimeyer, 1992). Stoltz and Young (2013) argued that an educative counseling style could even contribute to client resistance.

Theoretically, this harmful mechanism can be explained with assumptions from self-determination theory (SDT; Deci & Ryan, 2000; Vansteenkiste & Sheldon, 2006): Counselors who educate clients or even give them advice about career possibilities do not address clients need for autonomy. In terms of SDT, this should negatively affect client decidedness for their own career planning. Harakas (2013, p. 118) argued that “when change is strongly suggested or forced on an unwilling recipient, ambivalence is a predictable and natural outcome”.

These theoretical arguments are strongly supported from empirical MI process studies: Verbal behaviors that are inconsistent with MI (giving advices without permission, confrontations, giving directions) have shown to increase clients’ negative statements about making a change (Klonek et al., 2014; Magill et al., 2014). Based on the theoretical arguments (e.g., Harakas, 2013; Stoltz & Young, 2013) and empirical evidence from MI process studies (Magill et al., 2014), we expect that:

H3(a). Counselor behavior that is inconsistent with MI facilitates negative client career talk.

H3(b). Counselor behavior that is inconsistent with MI suppresses positive client career talk.

While counselor behaviors could impede the process of change by using MI inconsistent behavior, we also assume that counselors can help clients by using MI consistent behaviors. For example, counselor who use reflective listening, that is, try to empathically understand their interaction partner, can “assist the client in resolving transitional ambivalence, and in assessing
positive assets that can contribute to developing an occupational change plan specific to the client” (Stoltz & Young, 2013, p. 339). Therefore, we expect the following:

**H4(a).** Counselor behavior that is consistent with MI facilitates positive client career talk.

**H4(b).** Counselor behavior that is consistent with MI suppresses negative client career talk.

## 2. Method

### 2.1. Counselors and clients sample: description and procedure

Data was collected at a German university in 2012. All counselors \( (N = 14) \) were psychologists (bachelor’s degree) with an extensive career counseling training. Counselors mean age was 24.21 (SD = 0.89, Min = 23, Max = 26) and they were mainly female (93%). Clients \( (N = 14) \) came from various fields of study (mostly technical studies) and were about to conclude their degree. Clients’ mean age was 25.93 (SD = 4.21; Min = 22, Max = 39) and they were mostly male (71%). Counselors and clients were randomly assigned to each other.

### 2.2. Training of career counselors and career counseling concept

Counselors had received a standardized and supervised 160 h training over a period of one year in career counseling (for details about training: Braumandl & Dirschel, 2005). Training included methods how to support clients’ goal-directed actions towards career entry. The career counseling encompassed five well-structured sessions: In session one, counselor and client specify career goals and the client receives a structured overview about all sessions. In session two, counselors explore clients’ discrepancies between personal values, motives, and skills and relate these insights towards individual career goals. In session three, counselor and client work out relevant career skills and resources that help clients to reach career goals. Session four covers areas of specific support or personal development; for example, practicing a job interview. The final session is characterized by developing an action plan for goals in the near future.

### 2.3. Session selection for the analysis of counselor and client behavior

This study analyzed the first sixty minutes of the second and third session, that is, a 28 h sample of counselor–client interactions. Sessions were chosen for two reasons. First, both sessions were highly suitable to study counselor behaviors relevant to MI: In session two, counselors used a psychometric validated assessment instrument to discuss discrepancies between clients’ personal values, motives, and skills (Gessnitzer et al., 2014). The development of discrepancies is one of the four fundamental principles in MI interventions and solving these discrepancies is also a vital change process within a career counseling (Stoltz & Young, 2013). In session three, the counselor focused on the clients’ personal strengths, skills, and resources. The counselor’s task is to support client self-efficacy by aligning individual resources with future career goals. Again, “supporting self-efficacy” is a fundamental principle in MI interventions and is also considered vital for a successful career counseling (Perdrix et al., 2012; Stoltz & Young, 2013). Second, previous career counseling research suggested that ambivalence decreases from session 2 to 3 (Cardoso et al., 2014a).

### 2.4. Video-based behavioral measures of in-session behavior

#### 2.4.1. Counselor’s verbal in-session behaviors

We used a software-implemented version of the German MI Treatment Integrity, MITI-d (Klonek, Quera, & Kauffeld, 2015, implemented in INTERACT, Mangold, 2010) to code counselors’ verbal in-session behaviors (Table 1). Open questions and the use of reflective listening are indicators of MI proficiency, an excessive use of closed questions or high counselor talking time can be considered as a lack of MI skills.

#### 2.4.2. Clients’ verbal in-session behaviors

Clients’ in-session verbal behavior was coded with an adapted version of the Client Language Easy Rating system (CLEAR: Glynn & Moyers, 2012). Several clinical studies suggest good criterion validity for coding client within-session verbal responses with codes from this observational measure (for an overview see Magill et al., 2014). We adapted the coding scheme for career counseling and used a software-implementation in INTERACT (Mangold, 2010). Overall, client responses were differentiated by their valence towards career planning: Statements with a positive inclination toward career planning and development were coded as positive career talk, client statements with a negative inclination toward career planning were coded as negative career talk. Client statements with no connection to career plans were coded neutral talk. Table 1 gives an overview about the behavioral taxonomies applied in the present study (the manual and coded transcripts are available upon request from the first author). Since the computer-supported implementation saved onset and offset times of behavioral events, we also derived summary durations of client responses for each session.
Table 1
Taxonomy of verbal behavior codings.

<table>
<thead>
<tr>
<th>Codes</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VERBAL BEHAVIOR CODES FOR COUNSELOR (MITI-D)</strong></td>
<td></td>
</tr>
<tr>
<td>Giving information</td>
<td>Educating about a topic, providing feedback from assessment instruments, disclosing personal feedback, giving an opinion.</td>
</tr>
<tr>
<td>Open question</td>
<td>Offer a wide range of possible answers, seek for deeper information, encourage self-exploration.</td>
</tr>
<tr>
<td>Closed question</td>
<td>Can be answered with a “yes/no” response or specifies a very restricted range of answers.</td>
</tr>
<tr>
<td>Simple reflection</td>
<td>Repetition, rephrase, or paraphrase of a client’s previous statement.</td>
</tr>
<tr>
<td>Complex reflection</td>
<td>Repeats or rephrases a client statement but adds substantial meaning to what has been said.</td>
</tr>
<tr>
<td><strong>MI adherent</strong></td>
<td>Behaviors consistent with a MI approach (e.g., affirming, emphasizing client’s autonomy, showing support, asking permission before giving advice).</td>
</tr>
<tr>
<td><strong>MI non-adherent</strong></td>
<td>Behaviors inconsistent with a MI approach (e.g., confronting, orders, commands, or imperatives).</td>
</tr>
<tr>
<td><strong>VERBAL BEHAVIOR CODES FOR CLIENTS (CLEAR)</strong></td>
<td></td>
</tr>
<tr>
<td>Positive career talk&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Statements that speak towards career planning and development, that is, any verbally expressed desires, abilities, reasons, needs, verbal commitments, or past behavioral steps towards career planning and development. Self-reflections, e.g., realizing own competencies, identifying fields of development and goals the client wants to achieve.</td>
</tr>
<tr>
<td>Negative career talk&lt;sup&gt;b&lt;/sup&gt;</td>
<td>Statements that speak against forthcoming in career planning and development, that is, any verbally expressed lack of desires, abilities, reasons, needs, verbal commitments, or past behavioral steps towards career planning and development, e.g., deficits in competencies or decision making.</td>
</tr>
<tr>
<td>Neutral talk&lt;sup&gt;c&lt;/sup&gt;</td>
<td>Statements that have no connection to career plans or goals. For example, personal hobbies, answers to questions, or jokes that have no relation to career plans, reading out questionnaire results without interpreting them. Neutral talk is the default code unless verbal behavior clearly falls into positive or negative career talk.</td>
</tr>
</tbody>
</table>

Note. MITI-d = Motivational Interviewing Treatment Integrity in German (e.g., Klonek, Quera, and Kauffeld, 2015).
<sup>a</sup> This code is labeled as “Change Talk” in the original CLEAR.
<sup>b</sup> This code is labeled as “Sustain Talk” in the original CLEAR.

2.5. Training of observers and reliability of behavior coding systems

Prior to coding the analysis sample of career counseling sessions, two observers received observer training of approximately 40 h each. Both observers completed graded coding tasks that were based on pre-coded transcripts (Klonek, Quera, & Kauffeld, 2015; Klonek & Kauffeld, 2015; Project MILES, 2011; R. Brueck, personal communication, September 19, 2011). Moreover, observers had supervised observer meetings to address the questions, specify decision rules, and solving disagreements by discussing discrepancies (Yoder & Symons, 2010). Pre-coded transcripts allow other researchers to have a common metric to which codings can be compared (cf., Bakeman & Quera, 2011, p. 68). Data from observer training was saved in order to calculate reliability of observer scores with pre-coded transcripts. We calculated ICCs for summary counts of behavioral codes for each observer with pre-coded solutions for twelve transcripts. The ICC index adjusts for chance agreement and systematic differences between two coded items (i.e., transcripts; McGraw & Wong, 1996, p. 35). ICCs were classified according to Cicchetti’s (1994) proposed cutoff criteria (below .40 = poor; .40 to .59 = fair; .60 to .74 = good; .75 to 1.00 = excellent). With the exception of complex reflections (ICC = .46–.64) and follow neutral (ICC = .42–.79), both observers achieved excellent levels of reliability with pre-coded transcripts (ICCs > .80).

In a second step, we randomly sampled 20% (N = 6) of the analysis sample to derive estimates of inter-observer reliability for all composite measures that we used in the current study (cf., Tables 2–3).

2.6. Analytical strategy

To test the hypothesis that behavioral profiles of career counselors were different to good MI practice, we applied summary benchmarks for counselor behavior that indicate quality of “good MI” (Miller, 2000). These benchmarks included the relative amount of open questions to all questions (% open questions), rate of simple and complex reflections in a 10-min interval, reflections-to-questions ratio (number of all reflections in comparison to the number of all questions), and relative speaking time of the counselor (Table 2). These benchmarks have been used in previous studies (e.g., medical students, Opheim et al.,
Table 2
Behavioral profiles of MI proficiency and expert level versus behavioral profile values for counselors.

<table>
<thead>
<tr>
<th>Behavioral indicator</th>
<th>ICC</th>
<th>Expert level</th>
<th>Proficiency level</th>
<th>Counselor behavior</th>
<th>Counselor behavior vs. proficiency level</th>
<th>Counselor behavior vs. expert level</th>
</tr>
</thead>
<tbody>
<tr>
<td>% open questions</td>
<td>.86**</td>
<td>&gt;70%</td>
<td>&gt;50%</td>
<td>50%</td>
<td>t[13] = −0.01†</td>
<td>t[13] = −5.89**</td>
</tr>
<tr>
<td>Reflections-to-questions ratio</td>
<td>.93**</td>
<td>&gt;2:1</td>
<td>&gt;1:1</td>
<td>0.31:1</td>
<td>d = 0.0</td>
<td>d = 1.57</td>
</tr>
<tr>
<td>Rate of reflections (10 min.)</td>
<td>.95**</td>
<td>&gt;15</td>
<td>&gt;10</td>
<td>2.85</td>
<td>t[13] = −17.47**</td>
<td>t[13] = −29.69**</td>
</tr>
<tr>
<td>% talking time of counselor</td>
<td>.99**</td>
<td>&lt;60%</td>
<td>&lt;50%</td>
<td>49%</td>
<td>t[13] = −0.95</td>
<td>t[13] = −12.09**</td>
</tr>
</tbody>
</table>

Note. All benchmark scores were calculated following the MITI manual (cf. Moyers et al., 2005). % open questions = (frequency “open questions") / (frequency “open + closed questions"); reflections-to-questions ratio = (frequency of all reflections) / (frequency “open + closed questions"); rate of reflections in 10 min = frequency of all reflections within 10 min.
† p < .10.
** p < .01.

2009) to compare actual behavioral profiles of counselors with “good MI”. We calculated one-sample t-tests, in which we contrasted the observed values against these predefined benchmarks.

With respect to client verbal behavior, previous research has recommended to derive a composite measure of client language along a negative to positive continuum (cf., Magill et al., 2014). Therefore, we calculated the r-index (i.e., readiness/resistance-index) that can be interpreted as a single measure of ambivalence (Klonek & Kauffeld, 2015; Klonek, Paulsen, & Kauffeld, 2015). The r-index is derived by calculating the sum of positive client statements minus negative client statements for each session. Positive values signify that positive career talk has outweighed negative career talk, that is, clients argue more in favor of career development than against it and exhibit readiness. Values around zero signify that clients have equally provided positive and negative career talk, that is, they exhibit ambivalence about career planning. Negative values signify that negative career talk outweighs positive talk, that is, clients have argued more against career planning than for it and exhibit resistance to work outcome plans (Klonek & Kauffeld, 2015; Klonek, Paulsen and Kauffeld, 2015). We calculated paired t-tests on client language codes and client in-session ambivalence between session 2 and session 3.

To test our hypotheses concerning the dynamic interaction between counselors and clients (H4a and H4b), we used lag sequential analysis implemented in the Generalized Sequential Querier (GSEQ, Bakeman & Quera, 2011). Sequential analysis can test whether counselors systematically influence clients’ verbal response, that is, we tested whether specific types of MI in/consistent behavior facilitated or inhibited client responses (i.e., the unit of analysis is not the individual but the number of observations of the dyad).

Our data set yielded 6,883 observation units which were unevenly distributed among the categories from the coding instruments. To ensure the minimum expected frequency of five occurrences for cells within the transition matrix (e.g., Yoder & Symons, 2010) and to obtain reliable estimates of joint frequencies and the statistical parameters from lag sequential analysis we formed combinations of categories that were theoretically meaningful: MI consistent behavior (including MI adherent, open questions, simple/complex reflections), MI inconsistent behaviors (including giving information, closed questions, and MI non-adherent behavior), and neutral counselor behaviors. As a measure of point-by-point reliability, we calculated an event-based kappa coefficient using GSEQ (Bakeman & Quera, 2011) based on the six double-coded sessions for the aggregate categories. Codes were matched utterance-by-utterance using an alignment algorithm implemented in GSEQ. According to Sachs (1999) categorization, the overall point-by-point reliability for these six categories was strong (K(E) = .71). In order to have sufficient sample size of behavioral transitions, we pooled sequential analysis across all 28 sessions (e.g., Klonek et al., 2014).

Table 3
Changes of client verbal response behavior across career counseling sessions.

<table>
<thead>
<tr>
<th>Verbal client code</th>
<th>ICC</th>
<th>Session 2</th>
<th></th>
<th>Session 3</th>
<th></th>
<th>t-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>(SD)</td>
<td></td>
<td>M</td>
<td>(SD)</td>
<td></td>
</tr>
<tr>
<td>Redoness-index (R-index)</td>
<td>.82†</td>
<td>24.21</td>
<td>(14.03)</td>
<td>43.07</td>
<td>(24.65)</td>
<td>−3.58**</td>
</tr>
<tr>
<td>Positive career talk frequency</td>
<td>.82**</td>
<td>45.14</td>
<td>(13.67)</td>
<td>58.00</td>
<td>(26.5)</td>
<td>−2.41†</td>
</tr>
<tr>
<td>Positive career talk duration (in min)</td>
<td>.59†</td>
<td>18.58</td>
<td>(7.38)</td>
<td>23.26</td>
<td>(7.5)</td>
<td>−3.09**</td>
</tr>
<tr>
<td>Negative career talk frequency</td>
<td>.68†</td>
<td>20.93</td>
<td>(8.97)</td>
<td>14.93</td>
<td>(8.95)</td>
<td>2.18*</td>
</tr>
<tr>
<td>Negative career talk duration (in min)</td>
<td>.67†</td>
<td>5.90</td>
<td>(3.27)</td>
<td>3.85</td>
<td>(3.54)</td>
<td>2.33*</td>
</tr>
</tbody>
</table>

Note. N= 14.
† p < .10.
** p < .01.
3. Results

3.1. Status quo of counselors verbal in-session behaviors

Table 2 compares summary scores for counselor behaviors (that was sampled from both sessions) with behavioral benchmarks of good MI practice for a proficient and an expert MI level. The reflections-to-question ratio ($M = 0.31$ vs. $M = 1$, $t(13) = -13.56$, $p < .01$, $d = -3.63$) and the rate of reflections ($M = 2.85$ vs. $M = 10$, $t(13) = -17.47$, $p < .01$, $d = -4.67$) showed significant MI deficits for career counselors in comparison to the MI proficiency level. These differences were even more pronounced when counselors’ behavioral benchmarks were compared to the MI expert level.

The percentage of open questions ($M = 50\%$ vs. $M = 50\%$, $t(13) = -0.01$, $p = .99$, $d = 0$) and the percentage of talk time ($M = 49\%$ vs. $M = 50\%$, $t(13) = -0.95$, $p = .36$, $d = -0.26$) did not significantly differ from MI proficiency level but showed significant differences in comparison to the MI expert level (open questions: $M = 70\%$, $t(13) = -5.89$, $p < .01$, $d = -1.57$; talk time: $M = 60\%$, $t(13) = -12.09$, $p < .01$, $d = -3.23$). Overall, these results support Hypothesis 1 that MI untrained career counselors show MI behaviors below MI proficiency benchmarks.

3.2. Career counseling and career ambivalence

Our second hypothesis posited that client ambivalence will decrease across the career counseling sessions. In order to test this hypothesis, we derived a composite measure of ambivalence (r-index). Positive r-values signify that positive career talk outweighs negative career talk, that is, clients talked more in favor of career planning than against it. A value around zero signifies that a client is ambivalent about career planning and a negative value signifies that a client is still resistant to work out career plans.

The mean client r-index was positive in both sessions, that is, on average, clients in both sessions have argued more in favor of career planning than against it (cf., Table 3). In support of Hypothesis 2, the mean r-index in the third session was significantly increased (nearly doubled) in comparison to session 2 ($M_{SI} = 49.14$, $M_{S2} = 58$; $t(13) = -2.41$, $d = -0.80$, $p < .05$). In terms of time, this means that clients spoke 4.68 min more about their career planning and, therefore, were less ambivalent.

In order to substantiate this result, we ran additional statistical analyses for separate client response variables. Clients showed significantly more positive career talk utterances in session 3 compared to session 2 ($M_{SI} = 45.14$, $M_{S2} = 58$; $t(13) = -2.41$, $d = -0.80$, $p < .05$). In terms of time, this means that clients spoke 4.68 min more about their career planning from one counseling session to the subsequent session ($M_{SI} = 18.58$, $M_{S2} = 23.26$; $t(13) = -3.58$, $d = -0.26$, $p < .01$). Conversely, the amount of negative career talk significantly decreased from session 2 to session 3 ($M_{SI} = 20.93$, $M_{S2} = 14.93$; $t(13) = 2.18$, $d = .58$, $p < .05$). In terms of time, this means that clients spoke two minutes less against career planning in session 3 compared to session 2 ($M_{SI} = 5.90$, $M_{S2} = 3.85$; $t(13) = 2.33$, $d = .62$, $p < .05$). These results strongly support the hypothesis that client ambivalence is reduced across career counseling sessions. Altogether, career counseling positively affects client ambivalence. Our next step was to analyze whether MI consistent behaviors facilitated this process of resolving client ambivalence. This hypothesis was addressed by analyzing the sequential behavioral dynamics between counselor and client behaviors.

3.3. The interaction between counselor and client MI behavior

In order to test Hypotheses 3a, 3b, 4a and 4b, we generated lag-sequence matrices in GSEQ with counselor behavior in the rows (i.e., a given behaviors at lag0) and client verbal response in the column of the matrix (i.e., a target behaviors at lag1). Table 4 presents counselor–client behavior at lag1 (e.g., counselor behavior at lag0 to the immediate client behavior at lag1). The results show a significant $\chi^2(4) = 104.34$ ($p < .01$) which indicates a non-random pattern within counselor–client interactions. Therefore, we conducted further analyses.

To determine the strength of the specific associations between a counselor behavior (e.g., MI inconsistent) and the subsequent client response (e.g., positive career talk), we calculated adjusted residuals. Adjusted residuals are standardized raw residuals (based on the difference between the observed and expected frequency). This cell-specific statistic reveals whether a sequential
association between a counselor behavior at lag0 and a subsequent client behavior at lag1 is significantly more or less likely than expected by chance (Bakeman & Quera, 2011).

Hypothesis 3a posited that MI inconsistent behavior facilitates negative client career talk. Transitions from counselor MI inconsistent behavior to negative career talk were not significantly more likely than expected by chance \( (ADJR_{MI incon} \rightarrow negative talk) = -1.52, p = .13 \). This result does not support Hypothesis 3a. Hypothesis 3b posited that MI inconsistent behavior suppresses positive career talk. Transitions from counselor MI inconsistent behavior to client positive career talk were significantly less likely than expected by chance \( (ADJR_{MI incon} \rightarrow positive talk) = -8.61, p < .01 \), supporting Hypothesis 3b. Overall, these results partly support our third hypothesis in terms that client were less likely to speak about career planning when counselors showed MI inconsistent behaviors.

Hypothesis 4a posited that MI consistent counselor behavior facilitates client positive career talk. Transitions from MI consistent behavior to positive career talk were significantly more likely than expected by chance \( (ADJR_{MI con} \rightarrow positive talk) = 8.9, p < .01 \), supporting Hypothesis 4a. Hypothesis 4b posited that MI consistent counselor behavior suppresses negative career talk. Transitions from MI consistent to negative career talk were not significantly more likely than expected by chance \( (ADJR_{MI con} \rightarrow negative talk) = 0.54, p = .59 \), that is, Hypothesis 4b is not supported. Overall, these results partially support our fourth hypothesis that clients were more likely to talk about their future career planning when counselors used MI consistent counseling behaviors.

4. Discussion

This is the first study that empirically investigated how MI relevant behaviors are exhibited in career counseling and potentially contributes to the effectiveness of career counseling interventions. To do so, we used video-taped consecutive sessions of a career counseling intervention and adapted observational instruments from MI (cf., Glynn & Moyers, 2012; Klonek, Quera, & Kauffeld, 2015) to investigate the actual verbal interaction between counselors and clients. Three main findings accrued from this study:

First, counselor behaviors could be reliably coded with the adapted observational instruments. The systematic observations of counselor verbal behavior showed that counselors applied some MI strengths in their career counseling approach (asking more open than closed questions) but the quantitative analysis also revealed that counselors were not proficient in MI. This finding parallels previous career counseling process studies. For example, Mittendorf et al. (2010) reported that teachers who provided career counseling showed 37% verbal behaviors (information, giving advice) and asked only 7% open questions. A study from Multon et al. (2003) reported similar results, that is, counselors mostly provided information (35%) and did not exhibit a high proportion of open questions (10%). From a MI perspective, educating behaviors are not considered helpful in resolving client ambivalence (Miller & Rollnick, 2013) whereas person-centered techniques (e.g., open questions) are recommended to explore client goals and values. The current counselor sample still included high amount person-centered behaviors (e.g., open questions, balanced client–counselor talking time) that were somehow characteristic of MI.

Second, despite relatively low MI proficiency, systematic observations of clients’ language from both sessions revealed that career ambivalence decreased between sessions. Clients in the third sessions did not only speak more about career planning and personal development (e.g., “I realized I definitely want to do a PhD”) in comparison to session two but they also reduced language that spoke against forthcoming in career planning (e.g., “When I have to make a decision about my career...I still find it difficult.”). There is growing empirical evidence that career interventions improve clients’ decision-making, career planning, and career decision-making self-efficacy (e.g., Brown et al., 2003; Whiston et al., 1998). The current study further implies that the here applied career counseling helps to resolve client ambivalence, that is, inner dilemmas between different positions towards their career planning. Specifically, counselors explored discrepancies between clients’ personal values, motives, and skills in the second session. This exploration of discrepancies creates tension in terms of evocating themes that are incongruent for the client — indicated by an increase in client language that expresses ambivalence. In session three — in which counselors focused on clients’ personal strengths, skills, and resources — career ambivalence was reduced in comparison to the second session. In other words, exploration of coping strategies and personal strengths in the here applied counseling process has presumably contributed to the reduction of career ambivalence. We operationalized career ambivalence as a readiness-index and thereby followed the call to open the “black box” of a career intervention (Heppner & Heppner, 2003). While previous research about the reduction of client ambivalence in career counseling is based on case studies (Cardoso et al., 2014a/b, Neimeyer, 1992; Ribeiro et al., 2011), this is the first study that evaluated this effect within a larger sample.

Third, we were curious about the interactional dynamics between counselor-to-client responses. While our results indicated that the career intervention helps to resolve client ambivalence, what specific counselor behaviors facilitated this process? Our results suggest counselors’ use of MI consistent behaviors (open questions, reflections, emphasizing client autonomy) facilitated clients to talk about career planning and personal development while MI inconsistent behaviors (e.g., providing information about career planning) suppressed clients’ positive career talk. This result fits well to previous research that has shown that autonomy support of peers and parents positively affected students’ career decision-making autonomy and reduced career indecision (Guay, Senécal, Gauthier, & Fernet, 2003). Overall, our study provided some hints how career interventions could be improved: Extracting the active ingredients of an interventions allows us developing more effective interventions. It seems that MI consistent counselor behaviors (i.e., using reflective listening to co-construct clients’ career stories) might be such an active ingredient that fits well in the conceptualization of widely known career counseling approaches, like for instance, the career construction interview (Savickas, 2011a/b). MI consistent skills encompass person-centered skills (e.g., reflective listening, open questions) in contrast to giving advice or information. Therefore, counselors who rather assist clients to tell their own story (i.e., by listening to their story) than serve as an expert (i.e., telling clients what to do) can better establish career counseling.

as meaning making practice. Counselors who use reflective listening are helping clients’ to co-construct their own career narrative, that is, they add meaning to what they hear, help them to understand where they are coming from and in which direction they want to further develop (Savickas, 2011b).

The current study applied an observational approach in order to shed light on the process of career counseling. We followed calls from scholars that have pointed out that what counselors and clients actually do in career counseling is largely unknown (e.g., Mittendorff et al., 2010) and adapted observational instruments from MI process research in order to provide a taxonomy of quantifiable counselor and client behavior (Heppner & Heppner, 2003).

One important question in the career counseling research is “How do findings about helpful counselor response modes in the career counseling setting compare with those found in psychotherapy process research?” (Multon et al., 2003, p. 261). We have addressed this question by counting the amount of verbal counselor behaviors that are recommended from a MI perspective and compared it to behavioral benchmarks of recommended good MI from psychotherapy research. Overall, an integration of career counseling and psychotherapy research seems to be a fruitful endeavor.

The classification of counselor behavior with an observational coding scheme allows a comparison of counselor skills across different studies and “to form a knowledge base documenting what actually occurs during the career counseling process” (Multon et al., 2003).

4.1. Practical implications

Our study also has important practical implications. The counselors from this study have received a substantial training in career counseling (180 h). Since MI training was not included, counselors showed verbal MI inconsistent behaviors that seem to impede the counseling process. This result indicates that the counseling formation could be significantly improved by integrating elements from the MI training curriculum. Research on MI trainings suggests that trainees can gain substantial skills in MI after attending a two-day MI training workshop (de Roten et al., 2013). This suggests that career counselors could be trained more effectively within a tenth (2 × 9 h instead of 180 h) of basic career counseling training programs.

One aspect that is very important in terms of offering MI for career counselors are ethical considerations. Ethical questions arise in cases where clients are making a decision about taking a particular path (e.g., starting school, staying or leaving a job) and the counselor ethically would have no investment in the outcome of the decision. In these particular cases – which are characteristic of clients who seek a career counseling – the counselor should maintain equipoise (Miller & Rollnick, 2013). Equipoise describes a situation in which counselors should not guide the discussion to a particular goal change target (e.g., moving to city A and not staying in city B). As long as the client is genuinely uncertain, counselors need to maintain equipoise and explore both sides of the ambivalence without trying to tip the balance one way or another, that is, MI should be done in a non-directive fashion (Miller & Rollnick, 2013).

4.2. Limitations and future research

First, one important limitation of the current study is that counselors had little professional experience in career counseling. However, career counselors’ experience is an important indicator of their behavioral skill level and the analysis of experienced counselors can provide better insights into effective interventions (Whiston, Lindeman, Rahardja, & Reed, 2005). This limitation could explain why counselors did not exceed proficiency benchmarks of good MI. Therefore, findings from the current study should be replicated in a sample of more experienced career counselors to improve external validity.

Second, the observational variable “complex reflections” did not obtain good observer reliability. We recommend interpreting the results for this code with caution. Previous psychometric studies using the MITI also reported low reliabilities for this code (in Brueck et al., 2009, and Moyers et al., 2005, complex reflections yielded the lowest reliability). The low reliability might be explained by the strong conceptual overlap between the codes simple versus complex reflections. Future studies should combine these codes (overall reflections — as we did in the present study) when using it for further calculations.

Third, the current study did not assess a traditional client outcome variable like career planning, career decision-making self-efficacy, or career decidedness. Although we assessed client outcomes by a behavioral taxonomy, future studies should investigate how far both counselor and client within-session language in terms of MI consistent and inconsistent as well as positive and negative career talk relates to other outcome variables. For instance, we would hypothesize that negative career talk is positively and positive career talk negatively related to career in-decidedness. Moreover, these additional outcome variables should also be measured by another methodological approach, like for instance self-report (e.g., career satisfaction).

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

Acknowledgments

The authors gratefully acknowledge the coding work provided by Fiona Tobin for the data of the current study. We are grateful to Sina Gessnitzer and Eva-Maria Schulte for helping gather the data for this study.


