**Evaluating Team-Based Learning for Assessing Parental Capacity for Change**

Executive Summary Report of Recent Research in Child Protective Services in England

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**Executive Summary**

**Purpose of the Research**

Team-based learning approaches offer an alternative to training modes of skill development that have been suggested as better suiting the changing nature of the way social care work is undertaken. Team-based learning approaches build on the work of Michaelsen, Knight & Fink (2004) and follow an approach to learning that emphasises the application of knowledge within team structures. It is a form of employee development where a team of professionals interact to apply knowledge to simple and complex problems with the feedback of the facilitator as the content expert. However, there is little research identifying how best team based learning should be designed nor what factors increase its effectiveness specifically within social care nor outside educational settings. This study was therefore conducted to compare traditional training with a team-based learning intervention to identify whether either of these learning approaches had an impact on social workers’ knowledge and skills in the area of assessing parental capacity to change, and if one approach was more effective than the other.

**Team-Based Learning**

Team-based learning has been suggested to result in enhanced learning outcomes compared to approaches that rely on more traditional didactic methods (Anwar et al 2012). Students master content through repeated iterations of a three-step process that consists of (1) preclass preparation, (2) assurance of readiness to apply learned concepts and (3) application of content through group problem-solving activities. Haidet et al., (2012), comment that, “TBL moves beyond basic acquisition of facts to emphasize meaningful application of session or course content in real-world scenarios” (p293).

There are some key differences that distinguish team-based learning from traditional forms of training delivery. The basis of the learning approach draws upon the notion that cooperative structures such as teams create unique conditions for social learning (Buniss, Gray & Kelly 2011; Hernadez 2002). A further difference is the focus on participant accountability for learning. In traditional training programmes, the trainer identifies content for participant to have learned by the end of the training programme. Participants may have been given some pre-reading but there is no guarantee that they will have looked at it let alone learned any key concepts. During training feedback is often highly variable. As a consequence accountability for learning is fairly low. Team-based learning adopts an alternative approach to how learning is structured and requires higher levels of learner accountability.

Prior to each session participants are required to learn specific assigned content. Individuals and teams then apply this specified content to problem-solving discussions during the session. A key element of team-based learning is that individuals receive frequent and immediate feedback during the session on their learning from the facilitator as a content expert. Feedback on learning and performance is built into the learning delivery through a mechanism referred to as readiness assurance tests. Each time participants attend a session they are given tests/quizzes that they complete first individually then together in their team. These test the learning they were expected to have gained from the pre-reading. However an important aspect is that these tests require participants to *apply* the learning in a problem-solving format. In so doing this should enhance the transferability of learning to real-life practice. There is some empirical evidence that increased accountability to the peer group, a key feature of team-based learning appears to play a significant role in the learning gains observed in a variety of settings (Koles et al., 2010; Warrier et al., 2013).

There has been extensive evidence suggesting the successful application of TBL across disciplines including business (Clarke, 2010; Michaelsen et al 2009), marketing (Chad, 2012), medicine and health (Haidet et al., 2010), organizational psychology (Haberyan 2007), nursing (Cheng, et al., 2014; Mennenga. & Smyer 2010) and midwifery (Moore-Davis et al., (2015) and Social work (Gillespie 2012; Macke, Taylor & Taylor 2013). Multiple advantages of the TBL method have been reported (eg Michaelsen 2004; Watson et al., 1991; Garrett, 1998). These benefits can be categorised as improved learning outcomes (Koles et al 2010) and problem solving abilities (Kelly et al., 2005); and improved teamwork and communication skills (Thompson et al., 2007). Bahramifarid et al (2012) published a review of 75 TBL studies in medical education and concluded that students’ academic performance in TBL courses has generally been rated equal or superior to performance under traditional didactic approaches.

In more recent systematic reviews of the TBL literature in health professionals education, Fatmin et al (2013) and Haidet et al (2014) reported improvements in knowledge outcomes in educational studies that compared TBL methods with other methods such as the traditional lecture. To date, the effectiveness of TBL has not been addressed in depth in the social work literature. It has been suggested however, that this form of pedagogy offers significant advantages to the social work profession (Macke & Tapp 2012). Robinson, Robinson, & McCaskill (2013) for example, suggest “The field of social work…seems to be a natural fit for active and cooperative instruction because the very nature of the professional environment is one where social work professionals are collaborating cooperatively with clients and stakeholders at every level of the profession (p774)”.

*The objectives of the study were as follows:*

1. To compare the impact of training and team-based learning approaches on participants’ knowledge and practice in assessing parental capacity for change
2. To assess the impact of team-based learning on key behavioural indicators (improved quality of assessments).
3. To identify if co-worker support enhances the transfer of learning from training and team-based learning approaches to professional practice.
4. To identify factors associated with the effectiveness of team-based learning in supporting participants’ knowledge and practice gains in assessing parental capacity for change.

**What we did**

The research project took place between September 2014 and August 2016. Prior to conducting this evaluation study 12 staff based in children services from 8 local authorities in England were invited to join a change project to develop a learning pack covering knowledge and skills involved in the assessment of parental capacity to change within children’s services. Work on developing the learning pack lasted 12 months and was coordinated and administered by Research in Practice, a non-statutory organisation whose mission is to champion evidence-informed practice in children’s services and who were a partner in the research project. The pack was designed based upon Dawe & Harnett’s C2C model and consisted of four modules, each of a half. Key features of this assessment model include the use of standardised instruments in assessment in order that an objective measure of change can be determined, the use of goal setting and goal attainment scaling and the use of evidence-based interventions (in relation to the latter the course content drew heavily upon recent systematic reviews i.e. Barlow & Hall 2012; Barlow & Schrader-McMillan 2010).

A mixed methods research design was employed to achieve the objectives of the study combining both quantitative and qualitative approaches. We asked staff from local authority children’s services to participate in either one of two differing ways for developing staff skills in this assessment technique, training or team-based learning. The sample consisted of 5 local authorities who received training (84 participants) and 3 local authorities who agreed to take part in the team-based learning component (64 participants). Staff from two teams in one of the local authorities participating in the team-based learning also agreed to act as a comparison group (19 participants). A comparison group is often used in research studies as participants in this group are separated from those who are attending either training or team-based learning. This means neither of these learning interventions could have affected any changes in this group. This can help us to make a judgement as to whether any changes to those in either the team-based learning or training groups could reasonably be inferred as due to these learning interventions.

We assessed whether the learning interventions resulted in improvements to participants’ knowledge about this model of assessment by designing an on-line questionnaire. This tested participant’s understanding of the assessment model through asking whether number of statements relating to the assessment model were true or false. We refer to this type of knowledge as *declarative* knowledge (knowing what). There was also a section in the questionnaire that asked participants to *apply* their knowledge of the model and answer questions relating to a short case study. We refer to this type of knowledge as *procedural* knowledge (knowing how). Participants completed this questionnaire before they attended either training or team-based learning and then again four months later. We encountered a number of problems with the evaluation specifically in obtaining data relating to any changes in knowledge as a result of attending training or team-based learning. A number of participants found completing questionnaires difficult within the constraints of the workloads. Consequently, although starting with a total sample of 167, complete data sets (baseline and post-course measures) were obtained for only 39 or just over 23% of the total sample for knowledge measures. Details of those completing on-line questionnaires are displayed below.

Table: Numbers of Participants Completing Baseline and Follow up Measures

|  |  |  |  |
| --- | --- | --- | --- |
|  | Registered | Baseline Measures | 4 Months Post |
| Training | 84  | 66  | 29 |
| Team-Based Learning | 64  | 46  | 6 |
| Comparison Group | 19  | 16  | 4 |
| Total | 167  | 128  | 39  |

The evaluation also attempted to determine whether any learning gained through training or team-based learning was subsequently used on the job. To do this we undertook an audit of 50% of the caseloads held by participants. We checked cases to see whether specific aspects of the assessment model were evident in their practice. Specifically, we looked for 5 key behavioural indicators. These were (1) whether an assessment of parental capacity to change had been undertaken; (2) whether SMART goals had been used as part of this assessment; (3) whether Goal Attainment Scaling had been used in the assessment; (4) whether standardised instruments had been used to take baseline measures and reused to assess change and (5) whether evidence-based interventions had been drawn upon as a means to achieve the goals that had been set in the assessment of change. Cases were coded using a coding frame where participants received one point for each time a behavioural indicator was found in a case. Measures were taken within 1-3 weeks prior to any participant attending either training or team-based learning and again between 6-12 months following participation. Of the 167 participants who were registered to attend either training or team-based learning or participate in the comparison group, baseline behaviour (case audit) measures were obtained for 150 participants. We were able to collect audit measures again for 90 (54%) of the original 167 participants following attendance on training or team-based learning. Details of those from the three groups (training, team-based learning and comparison) from which audit measures were collected are displayed below.

**Table : Baseline and Follow-Up Case Audit Measures**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Registered | Baseline Measures | 6 Months Post |
| Training | 84  | 68  | 45  |
| Team-Based Learning | 64  | 63  | 32  |
| Comparison Group | 19  | 19  | 13  |
| Total | 167  | 150  | 90 ) |

**Findings**

We highlight the key findings from the study below as they relate to the research objectives that we set for the project

1. *To compare the impact of training and team-based learning approaches on participants’ knowledge and practice in assessing parental capacity for change*

One of the chief findings from the study was that participation in training resulted in improvements to both declarative (knowing what) and procedural (knowing how) forms of knowledge as indicated by performance on the knowledge test and case vignettes contained in the on-line questionnaire. What was surprising however was that we failed to find any significant improvements in procedural knowledge from those who participated in the team-based learning, whilst improvements in declarative knowledge were only significant at the .10 level of significance. These results would suggest that the training was far more effective than team-based learning for increasing participants’ knowledge of the model for assessing parental capacity to change. However, these results do need to be treated with caution because of the high level of attrition (participants not completing questionnaires for a second time following either training or team-based learning). We only managed to obtain complete data sets for 29 participants who attended training. Whilst the number for team-based learning was far less than this, with only 6 complete data sets obtained. With such low numbers it is difficult to determine statistically whether any real changes have occurred.

1. *To assess the impact of team-based learning on key behavioural indicators (improved quality of assessments).*

We found that neither training nor team-based learning resulted in any significant changes to skill acquisition as indicated by examining any differences between baseline and follow-up scores from the case audit data. The qualitative data we obtained from interviewing a sample of training and team-based learning participants over the telephone would seem to corroborate this, and offers some insights as to why this might have been the case. The first possible explanation lies in the model for assessing parental capacity to change that formed the core content of the learning. A number of participants indicated that they were not comfortable in using standardised instruments for measuring change nor in the goal attainment scaling process which requires a degree of numeracy. This is interesting in that it resonates with comments a number of social workers had made when developing the content of the training/team-based learning contained in the learning pack. The level of self-efficacy in using such tools appears fairly low, exacerbated by limited expectation to undertake capacity to change assessments using these tools by their agencies.

1. *To identify if co-worker support enhances the transfer of learning from training and team-based learning approaches to professional practice.*

We needed to make some changes to the original research design in order to secure local authorities participating in the study. One of those changes related to the anonymity of participants when collecting case audit data. Consequently, we were unable to test this proposition. However, given that we failed to find any changes to professional practice as indicated above it would seem unlikely that co-worker support would have made any significant difference in this case.

1. *To identify factors associated with the effectiveness of team-based learning in supporting participants’ knowledge and practice gains in assessing parental capacity for change.*

Team based learning has three key components: (1) advanced preparation by learners through reading materials, (2) both individual and then team testing of learning and (3) the majority of time during sessions devoted to the application of learning through problem solving exercises such as case studies. On the face of it then, one would expect the emphasis on the application of learning to be more effective at enhancing skill acquisition and transfer. Perhaps contributing to the failure to find any significant impact of on skills were factors undermining the intervention. Previous research has found that shared beliefs and knowledge is important to achieving consistent practice among human service workers and that these workers develop their practice through group norms and team interactions (Sandfort, 1999)

Findings from the qualitative data suggest that the benefits thought to be gained from a team-based learning pedagogy were significantly undermined by the high level of turnover among the teams that participated. High caseloads alongside challenging work conditions have been cited as key factors associated with high rates of turnover among child protection service workers (Alwon & Reitz 2000; Zlontnik et al., 2005). Team cohesion reflects the extent to which team members are committed to one another in the achievement of team goals and has been found to be associated with team performance scores on a psychiatry knowledge test (Thompson et al 2015). The high turnover would have significantly affected team cohesion and potentially therefore undermined any positive impacts of team based learning on skill acquisition.

**Implications for Policy and Practice**

Research evaluating the effectiveness of training programmes in social services is limited, despite the extensive efforts and resources often allocated to training programmes by social service organisations (Collins, Amodeo, & Clay, 2007). Specifically, in relation to training in the area of child welfare, Collins (2008) bemoaned that “training programs are repeatedly delivered without adequate empirical evidence of their effectiveness” (p.241). Similar to much of the previous research examining the impact of training in social services and child welfare settings more specifically, neither the training programme nor participating in team based learning resulted in any significant changes to practice in the area of assessing parental capacity to change. Comments from participants who took part in interviews, suggest a number of possible explanations as to why the training failed to affect practice. These include the particular characteristics of the assessment model that formed the content of the training, and the lack of reinforcement for use of the assessment model (or training) in the workplace. In order for training to transfer to actual use on the job, the systemic nature of training effectiveness needs to be more fully appreciated by child welfare agencies. This recognises that training is unlikely to transfer to practice unless learners are motivated to use the training in practice and the workplace creates the conditions to support training transfer. A significant problem remains that most organisations persist in the belief that simply participation in training programmes is sufficient in order for training to be effective. As a result, considerable effort is placed in the design of training programmes with a minimal understanding of the broader contextual factors that influence whether training is effective or not.

The use of team-based learning has increased dramatically within continuing healthcare education with the increasing awareness of the importance of teams in delivering quality patient care (Morrison et al 2010; Khune-Eversmann, Eversmann, & Fischer, 2008; Shellenberger et al., 2009). The information contained in child welfare training is often complex and hard to articulate and child protection workers primarily work in teams, so group and team discussion has been suggested as a means to promote a common and shared understanding of new work practices (Frank, Bagdasaryan, & Furman, 2008; Lewandowski, & Glenmaye, 2002). Consequently, a number of authors have suggested that team-based learning should be adopted more widely within social care (Macke & Tapp 2012; Robinson, Robinson, & McCaskill 2013). A number of studies report student positive attitudes towards TBL, including a number of systematic reviews of team-based learning in medical schools (Burgess, McGregor & Mellis, 2014). Although base on limited qualitative data, the study does suggest that the team-based learning approach was received favourably by a number of those who participated. However, implementing the approach in children’s services is not without challenges. The most significant of these concerns the high rate of staff turnover which undermines team cohesion. Although this is likely to have far less effect on knowledge acquisition while participating in a team-based learning intervention, it does have far a more deleterious effect on whether team-based learning can affect changes to actual practice. The approach requires more extensive preparation by learners in reading material that is subsequently tested. This may be difficult in child welfare work environments which are typically stressful working conditions. Team-based learning also requires training and development staff to adopt a different approach to staff development then has traditionally been the case in delivering training programmes. As was found here, not all these staff may be comfortable with the testing element of the intervention which means elements of team-based learning prescribed in the literature are altered in delivery. This variation in delivery may pose problems for reaching conclusions as to the effectiveness of team-based learning more broadly.

Finally, there is considerable evidence that the quality of evaluations undertaken by social care agencies of their training is often poor. Collins (2008) for example, found that follow up evaluations of training to determine the impact on child welfare professionals’ practice was rare in many US states often due to a lack of time and resources (Collins et al., 2007). Even where the evaluation of training is conducted, similar to here, the lack of randomization is often a problem in the research design used. However, a far more serious problem encountered in this study was the high level of attrition by study participants in relation to completing measures. It should be mentioned that of the 8 local authorities taking part in the study, 5 had recent OFSTED inspection reports (2014-2016) judging that their children services required improvement, whilst one was rated as inadequate. The decision by these local authorities to participate in either training or team-based learning to improve assessment skills in this area, may well have been driven by wider political considerations. A survey of child welfare workers in the US voiced concerns that training was being used in order to address agency performance problems and where training was not considered by these workers to be the solution and they were cynical of such attempts (Amodeo, Bratiotis, & Collins, 2009). Whether the high rates of attrition by study participants reflect more local conditions or is more indicative of the poor status accorded to training evaluation within social care more generally is not possible to know. However, high rates of attrition in training evaluation studies in social care has been highlighted in previous studies (Clarke, 2006). There are ethical dimensions to this problem too, as the failure to participate in evaluation studies of this kind is both wasteful and an inefficient use of resources if results are deemed unreliable. Nevertheless, including case audit in the evaluation design did mitigate this attrition to some degree. Future training evaluation studies should consider including as many objective measures of practice to assess behaviour change recognising that high rates of attrition may be likely.

**Conclusions**

Specifically, in relation to training in the area of child welfare, Collins (2008) bemoaned that “training programs are repeatedly delivered without adequate empirical evidence of their effectiveness” (p.241). Similar to much of the previous research examining the impact of training in social services and child welfare settings more specifically, neither the training programme nor participating in team based learning resulted in any significant changes to practice in the area of assessing parental capacity to change. In order for training to transfer to actual use on the job, the systemic nature of training effectiveness needs to be more fully appreciated by child welfare agencies. This recognises that training is unlikely to transfer to practice unless learners are motivated to use the training in practice and the workplace creates the conditions to support training transfer.We found no evidence of any effect from either training or team-based learning on the use of skills on the job as suggested by the case audit data. The significant finding that the training did result in improvements to declarative and procedural knowledge suggesting knowledge of how to use the assessment model in practice does raise concerns. It does suggest there may be factors outside the content and delivery of the training that may have affected the use of the learning on the job.