A Brief Review of Clinical Audit as Integral to the Philosophy and Science of Medicine: A Case Study of Self-Appraisal of Cognitive-Behavioural Assessment in Cognitive Behavioural Therapy for Children and Adolescents

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Abstract

Clinical audit is often considered daunting and seen with apprehension as a regulatory exercise. This paper is a simple exploration of clinical audit as a positive aspect of good medical practice in synergy with the philosophy and science of medical care. It looks at the process of clinical audit as an appraisal of good care practice. The process of clinical audit is demonstrated in a simple way by providing a case study of self-appraisal of the authors own individual practice of medicine. The objective of this exploration is to show that clinical audit can be a simple, positive and insightful experience and can be a routine part of everyday clinical practice integral to the philosophy and science of medical care.

Keywords: *Clinical Audit, Philosophy of Medicine, Science of Medicine, Child and Adolescent Psychiatry, Cognitive Behavioural Therapy, Cognitive Behavioural Assessment*

1. Introduction

In healthcare, the default assumption of a service provider or an individual clinician is that the quality of medical practice and care is good. The evidence-based science of medicine demands facts and proof of this good practice (Freymann 1975). Audit is a term from economics and law and hence can have a negative connotation as it may imply that it is a process of investigation to identify bad medical practice. This exploration hopes to allay the apprehensions by looking at clinical audit, which has now become part of good medical practice and evidence-based healthcare service, as a fundamental aspect of the philosophy and science of the practice of medical care. Audit looked at from this perspective can be seen positively as an appraisal of care to support the generation of knowledge in order to enhance the quality of healthcare service and quality of the practice of medicine. A case study of self-appraisal audit in child and adolescent psychiatry is presented demonstrating a simple process of audit and highlighting the ease and feasibility of this exercise as part of evidence-based medical practice keeping with the philosophy and science of medicine.

2. Philosophy of Medicine and Healthcare

Philosophy of medicine is the field that explores fundamentals of the practice, theory and research in medical science particularly exploring the metaphysical, ontological and ethical aspects (Caplan, 1992). Philosophy of healthcare primarily deals with the ethical and political concerns that arise in the practice of medical or health service and research (Levin 2012).

3. Science of Medicine and Healthcare

The science of medicine and health care is the application of scientific principles to the practice and research of medicine for advancing and improving care and services to patients. (Russell et al, 1992). It is based on three fundamental principles: (i) empirical data and evidence available are used to develop testable hypothesis (ii) valid and reliable empirical data are gathered and unbiased and precise methods are used to test the hypothesis, and (iii) clear and accurate recording of the process that can be subjected to peer scrutiny.

4. Clinical Audit

The clinical audit is a process that seeks to identify areas for service improvement, develop and carry out action plans to rectify or improve service provision and then to re-audit to ensure that these changes have an effect. It provides mechanisms for reviewing the quality of everyday care provided to patients by healthcare professionals (NICE, 2002).

The process of audit should ideally contain four key elements as proposed by the Standing Committee on Postgraduate Medical Education, UK (SCOPME 1989):
1. Audit should be directed at quality of care
2. Audit should include the setting of standards
3. Audit should compare performances with these standards
4. Audit should lead to beneficial change

5. The Audit Cycle

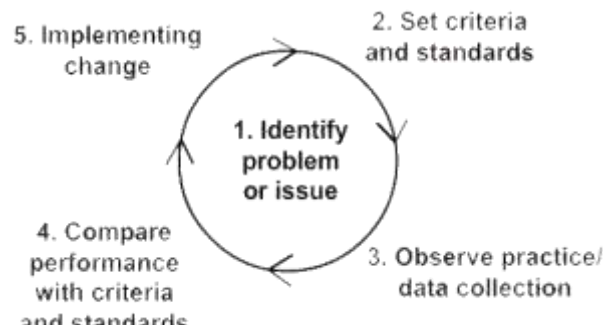The process of audit follows five key stages of the audit cycle:

Figure 1: Audit Cycle

When the process of clinical audit is thus considered as a discipline encompassing scientific rigor manifesting as a pursuit for securing a high standard of care for individuals in need, it has greater philosophical meaning and may thus succeed in ensuring quality in healthcare service and the individual practice of medical care.

6. A Case Study of Clinical Audit: Self-Appraisal of Cognitive-Behavioural Assessment for Cognitive Behavioural Therapy in Children and Adolescents

6.1 Clinical Practice Settings

The author has been using Cognitive Behavioural Therapy (CBT) in treating mental health conditions in children and adolescents for many years. Cognitive Behavioural Therapy is considered the gold standard among psychotherapies for several psychosocial and psychosomatic conditions. It is important to do a systematic cognitive-behavioural assessment for success of CBT. A simple and informal clinical audit was undertaken to look at the best practice at following all key steps in cognitive-behavioural assessment for CBT in every case of a child with psychosocial or psychosomatic condition taken up for CBT. The audit cycle including baseline and re-audit covered the period from January 2011 to December 2014.
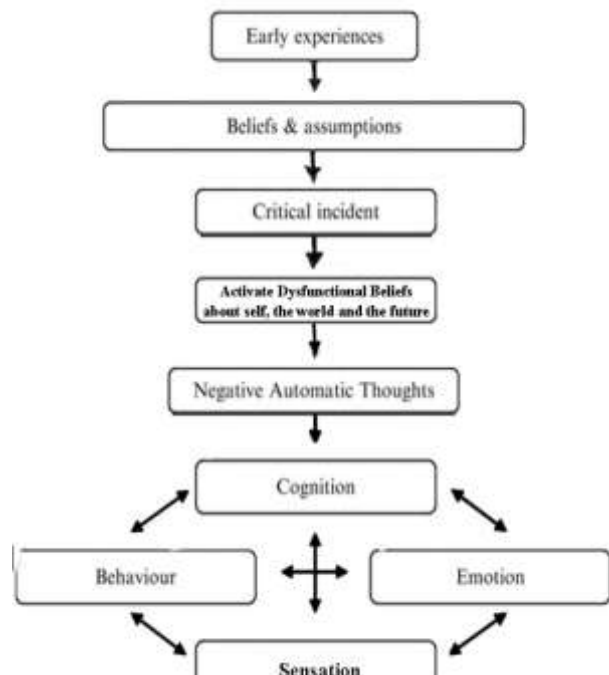
6.2 Cognitive Behavioural Therapy (CBT)

Figure 2: Psychological Basis of CBT

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Cognitive-behavioural therapy (CBT) is a psychosocial intervention that is the most widely used evidence-based practice for improving mental health. CBT is guided by empirical research. CBT focuses on the development and enhancement of personal coping strategies that target solving current problems and changing unhelpful patterns in cognitions (e.g. thoughts, beliefs, and attitudes), behaviours, and emotional regulation. In CBT core beliefs about negative patterns of thought about the self, the world and the future are challenged in order to alter unwanted behaviour patterns (Wright 2004)

6.3 Best Practice in Cognitive-Behavioural Assessment for CBT

The goal of CBT is to look at the person as a whole and see patterns that can be changed by facilitating and empowering the person. The basic steps in a cognitive-behavioural assessment include (Kaplan & Saccuzzo 1993):

Step 1: Identify critical behaviours
Step 2: Determine nature of critical behaviours: (a) 'excesses' or (b) 'deficits'
Step 3: Obtain a baseline of critical behaviours: Evaluate critical behaviours for frequency, duration and intensity
Step 4: Plan of Action: (a) If excess, attempt to decrease frequency, duration and intensity of behaviours (b) If deficits, attempt to increase behaviours

6.4 Clinical Audit Stage 1: Identifying the Issue

The key steps of CBT are crucial to success of therapy. Best practice is achieved by always going through each of the four steps of assessment with every patient. In order to ensure best practice it is important to clearly document all steps of the assessment in the patient notes.

6.5 Clinical Audit Stage 2: Set Criteria and Standard

Table 1: Setting of Criteria and Standard

CRITERIA	STANDARD
Step 1: Identify critical behaviour	100% Compliance
Step 2: Determine nature of critical behaviour: (a) Excess or (b) Deficit	100% Compliance
Step 3: Evaluate Baseline of critical behaviour	100% Compliance
Step 4: Plan of action: (a) Decrease Excess (b) Increase Deficit	100% Compliance

This is as per the best practice in cognitive-behavioural assessment (Kaplan & Saccuzzo 1993)

6.6 Clinical Audit Stage 3: Observing Practice

Case notes of 20 cases of children and adolescents taken up for CBT from January 2011 to December 2012 were examined to check whether each step of the cognitive-behavioural assessment had been clearly documented in the assessment notes.

The following format was used to collect the data:

Table 2 (a): Format for Data Collection - Steps 1 & 2

Pt. No	Step 1 Critical Behaviour			Step 2 Nature of Critical Behaviour		
	Present	Partial	Absent	Present	Partial	Absent
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						
15.						
16.						
17.						
18.						
19.						
20.						

Table 2 (b): Format for Data Collection - Steps 3 & 4

Pt. No	Step 3 Baseline of Critical Behaviour			Step 4 Plan of Action		
	Present	Partial	Absent	Present	Partial	Absent
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						
15.						
16.						
17.						
18.						
19.						
20.						

Table 3: Key for Observations in Data Collection

Present	Clearly documented	100% Compliance
Partial	Unclear, incomplete and/or requiring effort to identify	Partial Compliance
Absent	Not documented	Poor Compliance

Observations:

Table 4: Observations from Patient Data Examined

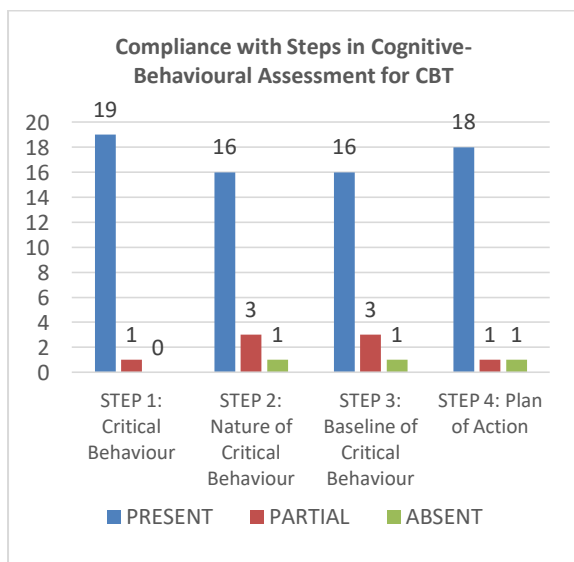| Cognitive-Behavioural Assessment	Record in Number of Patients			Total Patients
	Present	Partial	Absent	
Step 1: Critical Behaviour	19	1	0	20
Step 2: Nature of Critical Behaviour	16	3	1	20
Step 3: Baseline of Critical Behaviour	16	3	1	20
Step 4: Plan of Action	18	1	1	20

Figure 3: Observed Trend in Compliance with each step in Cognitive-Behavioural Assessment for CBT

6.8 Clinical Audit Stage 4: Compare Performance with Set Criteria and Standard

Step 1: Critical behaviour was identified and documented in 19 of the 20 cases and in one case was not specifically identified though it was there in the notes.

Step 2: Nature of critical behaviour, whether excess or deficit, were clearly mentioned in 16 of the 20 cases, mentioned but not easily and clearly available in three cases and not at all documented in one case

Step 3: Baseline of critical behaviour in terms of intensity, frequency and duration, were clearly documented in 16 of the 20 cases, not clearly documented in three cases and not recorded at all in one case.

Step 4: Plan of Action, was present in 19 of the 20 cases and only incompletely mentioned in one case.

Overall Compliance with the steps in cognitive-behavioural assessment for CBT in twenty cases of children and adolescents taken up for CBT:

Table 5: Overall Compliance with Each Step in Cognitive-Behavioural Assessment in CBT

Cognitive-Behavioural Assessment	Compliance		
	100% Compliance	Partial Compliance	Poor Compliance
Step 1: Critical Behaviour	95%	5%	0
Step 2: Nature of Critical Behaviour	80%	15%	5%
Step 3: Baseline of Critical Behaviour	80%	15%	5%
Step 4: Plan of Action	90%	5%	5%

6.9 Clinical Audit Stage 5: Implementing Change

The findings and observations provided a clear feedback of an area where improvement could be easily implemented. A reflection on the observations highlighted the importance and usefulness of recording all steps in the cognitive-behavioural assessment exercise for CBT and also think about outcomes in those cases where compliance was partial and poor. Plan of action of re-auditing after resolving to implement the aim of 100% compliance for all steps of the cognitive-behavioural assessment for CBT after two years.

7. Clinical Re-Audit: Self-Reappraisal of Cognitive-Behavioural Assessment in Cognitive Behavioural Therapy for Children and Adolescents

7.1 Setting the Context

A re-audit of the cognitive-behavioural assessment for CBT in Children and Adolescents with psychosocial and psychosomatic conditions selected for CBT intervention was undertaken as per the plan of action following an audit of the same two years ago.

7.2 Clinical Re-audit Stage 1: Re-identifying the Issue

Following the audit undertaken in 2012 and as per the plan of action to implement change, it was felt that it was important to see if effective implementation of the plan for completing and recording all steps in the cognitive-behavioural assessment for CBT was done and 100% compliance was achieved as a routine part of best practice.

7.3 Clinical Re-Audit Stage 2: Setting the Criteria and Standard

Table 6: Criteria and Standard for the Re-Audit

CRITERIA	STANDARD
Step 1: Identify critical behaviour	100% Compliance
Step 2: Determine nature of critical behaviour: (a) Excess or (b) Deficit	100% Compliance
Step 3: Evaluate Baseline of critical behaviour	100% Compliance
Step 4: Plan of action: (a) Decrease Excess (b) Increase Deficit	100% Compliance

This was as per the best practice in cognitive-behavioural assessment for CBT (Kaplan & Saccuzzo 1993)

7.4 Clinical Re-Audit Stage 3: Observing Practice

Case notes of 20 cases of children and adolescents taken up for CBT from January 2013 to December 2015 were examined to check whether each step of the cognitive-behavioural assessment for CBT had been clearly documented in the assessment notes.

The same table format [Table 2 (a) and 2 (b)] as in the audit above was used to collect the data.

Observations:

Table 7: Observations from the Patient Data Files

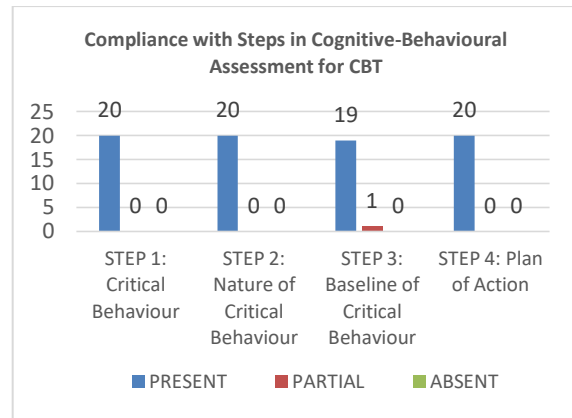| Cognitive-Behavioural Assessment	Record in Number of Patients			Total Patients
	Present	Partial	Absent	
Step 1: Critical Behaviour	20	0	0	20
Step 2: Nature of Critical Behaviour	20	0	0	20
Step 3: Baseline of Critical Behaviour	19	1	0	20
Step 4: Plan of Action	20	0	0	20

Figure 4: Observed Trend in Compliance with each step in Cognitive-Behavioural Assessment for CBT

7.5 Clinical Re-Audit Stage 4: Comparing Performance with Criteria and Standard

Step 1: Critical behaviour was identified and documented in all 20 of the 20 cases.
Step 2: Nature of critical behaviour, whether excess or deficit, were clearly mentioned in all 20 of the 20 cases.
Step 3: Baseline of critical behaviour in terms of intensity, frequency and duration, were clearly documented in 19 of the 20 cases, and partially documented in one case.
Step 4: Plan of Action, was present in all 20 of the 20 cases.

Overall Compliance with the steps in cognitive-behavioural assessment for CBT in twenty cases of children and adolescents taken up for CBT:

Table 8: Overall Compliance with Each Step in Cognitive-Behavioural Assessment in CBT

Cognitive-Behavioural Assessment	Compliance		
	100% Compliance	Partial Compliance	Poor Compliance
Step 1: Critical Behaviour	100%	0%	0%
Step 2: Nature of Critical Behaviour	100%	0%	0%
Step 3: Baseline of Critical Behaviour	95%	5%	0%
Step 4: Plan of Action	100%	0%	0%

7.6 Clinical Re-Audit Stage 5: Implementing Change

The findings and observations provided a clear feedback showing the difference and improvement in the practice with regard to recording the steps in cognitive-behavioural assessment for CBT in children and adolescents taken up for CBT

intervention for psychosocial and psychosomatic conditions. A reflection on the observations re-highlighted the usefulness of recording all steps in the cognitive-behavioural assessment exercise for CBT. Partial compliance for step 3: baseline of critical behaviour, in one case could have been improved through attention to detail during documentation. Plan of action: Repeat re-auditing can be a positive feedback tool and with an aim to achieve 100% compliance for all steps of the cognitive-behavioural assessment for CBT would improve the delivery of high quality CBT in practice.

8. Conclusion

Clinical audit can be an integral part of everyday good medical practice. The above informal self-appraisal audit exercise demonstrates the ease of the process. It also highlights the feasibility of incorporating this as a part and parcel of routine good clinical practice which is in sync with the philosophy and science of medical care. This simple exploration demonstrates that clinical audit can be a simple, positive, insightful and meaningful aspect of everyday evidence-based medical practice.

Declaration:

I declare that this is my original work and I am the sole author. I have not received any support financial or otherwise from any source. Due diligence has been taken not to reveal identity of any individual or entity in any way that may compromise on confidentiality. There is no potential conflict of interest with respect to the research or authorship of this work.

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