**Smoking – Learning Theory Model**

Note: Learning Theory is a broad term which covers both the Behaviourist and Social Learning Theory (SLT) approaches in Psychology

**Initiation**

*Behaviourism*

Operant Conditioning (Positive Reinforcement) - Nicotine is a primary reinforcer. It’s like food, drink, warmth and sex; it is rewarding in its own right, they are inherently rewarding (EG through their action on the brain’s dopamine system). Behaviourists agree that these primary reinforcers are not learnt and are innate (born with); there are not many of these. This explains why, having started to smoke it very quickly becomes habit-forming possibly leading to craving and addiction.

Nicotine has physiological effects on the dopamine (a neurotransmitter associated with reward and pleasure) system in the brain and produces a feeling of mild euphoria which the smoker finds rewarding and so this positively reinforces their smoking behaviour.

*SLT*

Our observations of other people engaging in addictive behaviour can lead to the development of addiction. When we observe the behaviour and reactions of other people using addictive substances (or activities) we may wish to imitate what we saw. For instance, suppose we observed an agitated, frazzled parent coming home from work. She smokes a few cigarettes and then becomes relaxed and fun to be around. We observed that smoking is a good way of coping with stress. Ali (2012) found that influence from peers and family plays a significant role in influencing adolescent smoking.

**Maintenance**

*Behaviourism*

Operant Conditioning (Negative Reinforcement) - As with positive reinforcement, this aspect of the learning theory also relies heavily on the biological components of addiction. Once the nicotine addict stops smoking there are unpleasant withdrawal symptoms. As a result, the smoker experiences anxiety and agitation and a lowering of mood. This can also result in disturbances of eating and of sleep. Smoking a cigarette therefore acts as a powerful form of negative reinforcement (avoiding the negative consequence of the withdrawal symptoms, and increases the likelihood of the behaviour – smoking - being repeated). It immediately removes all of this unpleasantness and has a reinforcing effect. The smoker learns that all they ever have to do in future is smoke to remove the unpleasant withdrawal symptoms. In fact, seasoned smokers are able to anticipate the withdrawal and smoke before the symptoms start.

**Relapse**

*Behaviourism*

Classical Conditioning (Cue Reactivity Theory) - In addictive behaviour the experience of the craving is paired with the presence of the items associated with the behaviour. The smoker learns to associate other things with nicotine (the primary reinforcer). Any other stimuli that are present at the same time, or just before, become associated with the pleasurable effect. These secondary reinforcers such as lighters, cigarette packets, certain places (pubs especially) and people trigger the desire to smoke. These paraphernalia are therefore able to elicit conditioned responses even in the absence of actual smoking (Carter & Tiffany 1999). This is called cue reactivity.

After quitting smoking, these cues still exist, so many years later, meeting with an old friend or visiting a certain place can trigger the craving for a cigarette. This psychological craving is also accompanied by physiological changes within the body and results in increased heart rate, breathing etc. Carter and Tiffany (1999) found that smokers reacted strongly to cues presented to them (lighters, ashtrays, cigarette packets) and that they reported high levels of craving and increased physiological arousal.

Shiffman (1996) asked former smokers to record when and where they relapsed and found it was always in situations when with other smokers or settings where they’d smoked in the past.