

# **Tutorial letter 201/1/2017**

## **HIV/Aids care and counselling PYC2605**

**Semester 1**

**Department of Psychology**

**Feedback on Assignment 01**

## INTRODUCTION

Dear Student,

We hope that you are enjoying your module in HIV/Aids care and counselling. If you find the course helpful, please tell your friends and colleagues about it. Remember, it is possible for students to enrol only for this one module for non-degree purposes, if they wish to do so. The only prerequisite for the course is matric (Standard 10/Grade 12). It may also interest you to know that almost 6 000 students enrol for the HIV/Aids care and counselling course (PYC2605) per year!

The main purpose of this tutorial letter is to give feedback on Assignment 01. However, before we do so, let's address some other issues first.

### Assignment issues

In the previous semester, many students did not get examination admission because (a) their assignments were never received by Unisa; (b) the assignments reached Unisa after the closing date; and (c) the assignments were submitted in the wrong semester. Please note that it is your own responsibility to make sure that Unisa has received and marked your assignments. Please check myUnisa regularly to see if your assignment has been received and marked. If you check the system regularly and it seems that your assignment was not received or marked, please direct your enquiries to the Students Assessment and Assignment Department. Please do not contact your lecturers to find out what happened to your assignments. Your multiple choice assignments go directly to the Assignment section to be marked by computer. Unfortunately, lecturers do not see your multiple choice assignments at all.

Please note that you have to submit Assignment 01 to gain examination admission. Together Assignments 01 and 02 contribute 20% to your final year mark.

Please take careful note of your assignment closing dates. In each semester there are two multiple choice assignments each with a specific closing date and unique number.

Make sure that you know exactly if you are registered for the first or for the second semester. Use the assignment closing date and unique number of that specific semester **ONLY** on your mark reading sheet. If you are registered for the 2nd semester, please do not use the 1st semester unique numbers. Your assignment will **NOT** be registered on the system and it will get lost.

### Electronic Learning Units and Open Electronic Resources

Do you enjoy the online module? We surely had a lot of fun compiling it! Some students find the online approach a bit daunting but keep in mind that the purpose of the online module is only to guide you through the prescribed book and to challenge you to think differently about HIV and Aids and to motivate you to do things in your communities. There will be neither examination questions directly on the content of the electronic learning units, nor on the open educational resources (e.g. videos and webpages).

The examination questions are based on your prescribed book only, and Tutorial Letter 101/2017 (Section 7.1 Syllabus: What to study for the exam) indicates what to study in your prescribed book.

**Declaration Letters**

As discussed in Tutorial Letter 101/2017, you will automatically receive a Declaration Letter after successful completion of this module. Please note that we cannot re-issue this Letter of Declaration if you do not receive it the first time or lose it. Please make sure that you receive your Declaration Letter by following three simple steps:

- (a) Make sure that Unisa has your most recent postal address. We will send your Declaration Letter to the address that you registered with Unisa. If your address changed, please notify Unisa (not the Psychology Department) to change your address on the student system (fill in the form at the back of my Studies @ Unisa and send it to The Registrar (Academic), PO Box 392, UNISA 0003). You can also change your details by logging into myUnisa.
- (b) Please make sure that all outstanding fees are paid. If your study fees are in arrears, Unisa will unfortunately not release your exam results, and we will not be able to issue the Declaration Letter either.
- (c) Return all your library books that are outstanding. Unisa will not release your exam results if you still have library books in your possession.

Note: We do NOT print or issue the letters of declaration in our offices in the Department of Psychology. Please do not visit us on campus to issue the letters because we are not able to do so.

**The examination paper**

Tutorial Letter 102 contains a practice examination paper to familiarise you with what to expect in the examinations. Please make use of the opportunity to see if you can complete it (without your prescribed book) within the two hours allowed for the paper. DO NOT send your answers to Unisa to be marked. You will find the answers at the back of the tutorial letter for you to mark your own paper. Old examination papers for this module are available on myUnisa.

**Feedback on Assignment 01**

The purpose of this assignment was to help you to assess where you are in terms of your HIV and Aids reading and comprehension skills, knowledge and attitudes at this early stage of your studies. Use your assignment mark and our feedback to sensitise you to possible problems in your learning. Table 1 gives a summary of the correct answers to Assignment 01.

We hope that you have learned more than theory in this assignment and that you are stimulated to read more about new developments in the HIV and Aids field. Best wishes with all the work ahead, and make the best of it!

**Table 1: Correct answers to Assignment 01.**

Question	Assignment 1 correct answer	Question	Assignment 1 correct answer
1	3	9	2
2	1	10	1
3	2	11	1
4	1	12	1
5	2	13	1
6	3	14	4
7	1	15	2
8	4		

Students generally did very well in Assignment 01. I will now discuss each one of the questions in more detail. All page number included in the feedback refers to pages in your prescribed book.

**Take note:** two page numbers will be provided. e.g. p. 10 / p. 15. The first page number refers to the 6<sup>th</sup> edition and the second page number to the 5<sup>th</sup> edition.

### QUESTION 1

When was HIV first isolated by scientists?

- (1) 1953
- (2) 1973
- (3) 1983
- (4) 1992

### Feedback on Question 1

The correct answer is 3. HIV was first isolated in 1983 by a scientist Dr Luc Montagnier in Paris. Options 1, 2 and 4 are incorrect. Read “The birth of a new epidemic” (p.4 / p. 4) for more information.

### QUESTION 2

Two viruses are associated with Aids, namely HIV-1 and HIV-2. The difference between the two viruses is

- (1) HIV-1 progresses faster to final stage Aids than HIV-2.
- (2) HIV-1 infections have a longer latency period than HIV-2 before the disease develops.
- (3) HIV-2 is more pathogenic than HIV-1.
- (4) HIV-1 has lower viral counts than HIV-2.

### Feedback on Question 2

The correct answer is 1. The difference between the two viruses is that HIV-1 progresses faster to the final stage Aids than HIV-2 (option 2 incorrect). HIV-2 is less pathogenic than HIV-1 (option 3 incorrect). Viral count (viral load) refers to the quantity of viral RNA in the blood of an infected person (option 4 incorrect; see p. 56 for a definition of viral load). Read “Crossing the species barrier” (p. 7 / p. 5) for more information.

### QUESTION 3

What feature of HIV makes it so effective and so difficult for the immune system to kill?

- (1) Although it is a very fragile virus, it has the ability to survive harsh conditions and environments.
- (2) The important defensive cells of the human immune system (i.e. the CD4+T cells) have no way of defending themselves against HIV.
- (3) The fact that HIV reproduces inside the human body.
- (4) The reproduction of the virus takes place in latent memory cells which makes it difficult for the immune system to detect.

### Feedback on Question 3

The correct answer is 2. The antigen-presenting cells transport the HI virus and present it to the CD4+T cells making the CD4+T cells vulnerable to HIV infection. It therefore attacks and infects the most vital defensive cells of our immune system. HIV is fragile and will die when it is no longer in fluid, and when it is exposed to oxygen, heat and dryness in the atmosphere (Read "For how long can the virus survive outside the body?" on p. 61 / p. 46) (option 1 incorrect). Many viruses reproduce inside the human body. This is therefore not a unique feature of HIV (option 3 incorrect). The reproduction does not take place in latent memory cells and it is easy for the immune system to detect the virus. The immune system plays an important role in the replication of HIV and therefore the HI virus want the immune system to easily detect it (options 4 incorrect). Read "The uniqueness of HIV" (p. 39 / p. 29) and "How HIV inters the body" (p.41 / p. 31) for more information.

### QUESTION 4

What role do antibodies play in the immune response to foreign pathogens?

- (1) They attach themselves to the outermost antigens of the pathogen and act as a shield between the pathogen and the host cell.
- (2) They generate antigens to present to the CD4+T cells so that the CD4+T cells can organise a proper immune response against the pathogens.
- (3) In collaboration with the killer T cells, they directly attack and kill pathogens.
- (4) They attach themselves to the outermost antigens of the pathogens to accelerate the movement of the pathogens, which makes them easy victims for the phagocytes to ingest.

### Feedback on Question 4

The correct answer is 1. Antibodies are not antigen presenting cells (option 2 incorrect) and they work together with B lymphocytes (option 3 incorrect). When antibodies cover the pathogen they protect potential host cells from the pathogen. In addition they slow down the pathogens making them easy prey for phagocytes and macrophages. Read "B lymphocytes and antibodies" (p. 33 / p. 25) for more information.

### QUESTION 5

Mlungisi is a young teenage boy and considers going to an initiation school to be circumcised. He wants to do it as it is part of his culture, and he strongly believes that young people should respect the culture of their parents. What would you advise him?

- (1) Don't go! Traditional circumcision is a dangerous practice and always leads to HIV infection. Hundreds of boys die every year.
- (2) Mlungisi's wish to be circumcised for cultural reasons should be respected, as long as he makes sure that it is done by a reputable person who uses sterile blades, or, alternatively he should take his own sterile blade with him.
- (3) Research findings are very controversial and there is no proof yet that circumcision might prevent HIV infection. It would be better for Mlungisi to wait until there is more proof that circumcision definitely prevents HIV infection.
- (4) It is not the counsellor's place to give Mlungisi any advice about cultural issues. If he wants to go the circumcision is a matter between him and the traditional healer only.

### Feedback on Question 5

The correct answer is 2. If done correctly traditional circumcision will not lead to HIV infection (option 1 incorrect). There is proof that male circumcision may prevent HIV infection but does not eliminate the risk of HIV infection (option 3 incorrect). Cultural beliefs and practices should be taken into account but that does not exclude any advice. For instance, the counsellor can advise Mlungisi to make use of a reputable traditional healer who was properly trained and who make use of sterile equipment. Read “Male circumcision” (p. 71 / p. 54) for more information.

### QUESTION 6

Although there are overlaps between prevention methods, the use of condoms is essentially an example of \_\_\_\_\_ intervention to prevent HIV infection.

- (1) structural
- (2) biomedical
- (3) behavioural
- (4) political

### Feedback on Question 6

The correct answer is 3 because condom use is a safer sexual practice to prevent HIV infection. Structural intervention refers to a focus on aspects such as laws, stigma and discrimination that restrict access to prevention, treatment and care (option 1 incorrect). Biomedical interventions focus on biological and medical actions to prevent infection, which condom use is not (option 2 incorrect). A political intervention will form part of structural interventions (option 4 incorrect). Read “Behavioural intervention” (p. 71 / p.53) for more information.

### QUESTION 7

Being HIV positive, Karel is most infectious for his sex partners in the final stage of Aids, as well as in the

- (1) stage of primary HIV infection when sero-conversion has taken place.
- (2) asymptomatic stage.
- (3) minor or mild symptomatic stage.
- (4) secondary infection stage.

### Feedback on Question 7

The correct answer is 1 because there are many infectious viruses in the blood during the primary phase of infection. This is due to the rapid multiplication and replication of the virus after infection. During the asymptomatic stage the viral load declines and then levels off to a steady state (p. 90) (option 2 incorrect). During the stage of mild (minor) symptoms the viral load will increase but still Karel will not be as infectious as during the primary stage or the final stage (option 3 incorrect). There is not a stage such as a secondary infection stage (option 4 incorrect). Read “Primary HIV infection” (p. 87 / p.64) for more information.

**QUESTION 8**

One usually only says that a patient has Aids when

- (1) sero-conversion has taken place and the person tests HIV positive.
- (2) the person has passed the asymptomatic stage and has started showing symptoms of HIV disease.
- (3) certain key opportunistic infections, such as swelling of the lymph nodes, become evident.
- (4) the symptoms of HIV disease become more severe and acute and more persistent and untreatable conditions begin to manifest themselves.

**Feedback on Question 8**

The correct answer is 4. During this stage (clinical stage 4) the immune system also deteriorates exponentially. Sero-conversion takes place during primary HIV infection and from then onward the patient will test HIV positive (with an HIV test) (option 1 incorrect). Option 2 refers to clinical stage 2 while option 3 refers to clinical stage 3. Read “Clinical Stage 4” (p. 92 / p. 68) for more information.

**QUESTION 9**

Susan is HIV positive and she is worried about the HIV status of her six-month old baby. She took her baby to the hospital to be tested for HIV, but the nurse said that the baby is 'too young to be tested' with the Rapid HIV antibody test that they use at the hospital. What did the nurse mean?

- (1) The Rapid HIV antibody test is a very painful test and it is traumatic to do the test on a baby younger than 18 months of age.
- (2) During pregnancy the mother's antibodies are transferred to the baby through the placenta and it is therefore not possible before the baby is approximately 18 months old to establish if the HIV antibodies in the baby's blood are those of the baby or of the mother.
- (3) The hospital uses only Rapid HIV antibody tests, and babies younger than 18 months old should only be tested with the ELISA test to give reliable results and to make sure that the antibodies are indeed those of the baby and not of the mother.
- (4) A baby's immune system does not function properly before the baby is at least 18 months old and a baby does not, therefore, have the ability to produce HIV antibodies before he or she is older.

**Feedback on Question 9**

The correct answer is 2 as the Rapid HIV antibody test tests for antibodies. Susan's baby (who is exposed to HIV) should rather be tested with the DNA PCR technique.

In addition to not being a suitable test at that age, the Rapid HIV antibody tests are actually less invasive (options 1 incorrect). The ELISA test cannot distinguish between the mother's and the baby's antibodies (option 3 incorrect). In addition to the reason why the Rapid HIV test cannot be used one should notice that the baby's body can indeed produce antibodies (option 4 incorrect). Read “Which HIV tests should be used on babies?” / “When can a baby be tested for HIV?” (p.141/ p. 103) for more information.

## QUESTION 10

The HIV PCR technique can be used as a qualitative or a quantitative test for either diagnostic or post-diagnostic purposes. A qualitative PCR test is used

- (1) to diagnose an individual as HIV positive or negative.
- (2) for treatment purposes after diagnosis of the HIV infection.
- (3) to measure the amount of viruses in a person's blood after diagnosis.
- (4) to establish the health of the immune system.

### Feedback on Question 10

The correct answer is 1. The test, also referred to as an HIV DNA PCR technique or DNA PCR, is used when early diagnosis is required. Option 2 rather refers to the quantitative PCR technique. Option 3 is incorrect as the DNA PCR detects proviral DNA in cells (not the amount of viruses in the blood). Option 4 rather refers to CD4+ T cell count. Read "Proviral DNA detection" (p. 137 / pp. 102-103) for more information.

## QUESTION 11

Which one of the following statements about antiretroviral therapy (ART) is true?

- (1) The general aim of antiretroviral therapy is to reduce the HI viral load in the blood as much as possible for as long as possible.
- (2) Although antiretroviral therapy kills all the HIV viruses in the blood, people can get very sick from the side-effects of the medication.
- (3) One of the advantages of antiretroviral therapy is that a person can stop taking the medication as soon as the HIV viral load drops and the CD4+T cell count increases.
- (4) One of the disadvantages of antiretroviral therapy is that it can only be started when a patient has reached a CD4+T cell count of 350 or less.

### Feedback on Question 11

The correct answer is 1 which reflects the virological goal. ART does not kill HI viruses but block their actions (option 2 incorrect). It is a life-long treatment (option 3 incorrect). Previously a CD4+T cell count of 350 or less was included in the guidelines but was not the only criteria. In recent guidelines a CD4+T cell count of 350 or less indicates that ART initiation should not be unduly delayed (option 4 incorrect). Read "Goals of antiretroviral therapy" (p. 147 / p. 110) and "When to start antiretroviral therapy" (p. 152 / p. 114) for more information.

## QUESTION 12

In order to manage HIV infection, it is important for the clinician to monitor the individual's CD4+T cell lymphocyte count, as well as the viral load in his or her blood, on an ongoing basis. A viral load test (RNA PCR) is important to

- (a) assess the severity of the HIV infection.
- (b) prevent antiretroviral resistance.
- (c) measure the client's response to anti-retroviral medication.
- (d) prevent or treat opportunistic infections.

The correct answer is:

- (1) (a) and (c)
- (2) (b) and (d)
- (3) (a) and (b)
- (4) (b) and (c)

### Feedback on Question 12

The correct answer is 1. In addition the viral load test is important to prescribe relevant ARV medication and to detect ARV resistance (option b incorrect). The CD4+ T cell counts are important in the prevention and treatment of opportunistic infections (option c incorrect). Read “CD4+T cell count and viral load” / “Assessing immune status and viral load” (p. 147 / p.110) for more information.

### QUESTION 13

Susan always asks her customers to use condoms, but she usually gives in to their wishes not to use them. When an Aids educator asks her about this, she says: 'The customer is always right, and I am a very shy and weak woman. I don't have the guts or the ability to convince men to use condoms if they don't want to use them. Anyway, I can't help what is happening to me.' According to theories of behaviour change, Susan has a

- (1) low self-efficacy and an external locus of control.
- (2) low self-efficacy and an internal locus of control.
- (3) high self-efficacy and an external locus of control.
- (4) high self-efficacy and an internal locus of control.

### Feedback on Question 13

The correct answer is 1. According to theories of behaviour change, Susan has a low self-efficacy and an external locus of control. People with low self-efficacy are less motivated to master new situations and behaviour. Susan also believes that she has no control over her own health and that is an external locus of control (options 2, 3 and 4 incorrect). Read “Self-efficacy or perceived behaviour control” (p. 191 / p.140) and “Internal versus external health locus of control” (p. 193 / p. 141) for more information.

### QUESTION 14

According to the theory of gender and power which structural intervention could reduce the HIV risk of disempowered women?

- (1) Promote the decision-making power of women above men in relationships.
- (2) Teaching these women the negative effects HIV infection could have on their lives.
- (3) Advising disempowered women on how to manage their relationships.
- (4) Enforcing legal policies prohibiting violence against women.

### **Feedback on Question 14**

The correct answer is 4. Remember from the feedback on Question 6 that laws and therefore legal policies form part of structural interventions. The structural intervention that could reduce the HIV risk of disempowered women is to enforce legal policies that prohibit violence against women. None of the other options adhere to the definition of structural interventions.

Read “Intervention strategies to protect women” / “...suggestions for interventions to reduce the HIV risk of disempowered women ...” (p. 203 / p. 147b (a section under Theory of gender and power)) for more information.

### **QUESTION 15**

There are many teaching methods or strategies that can promote learning. One of the advantages of role play is that

- (1) it develops feelings of group safety because it is a relaxing exercise.
- (2) learners find it beneficial to practise new learning by acting in or observing simulated exercises.
- (3) it is empowering for learners if the facilitator builds on their successes by strictly structuring the role play.
- (4) it forces silent members to play the lead roles in role-play exercises, because then they do not have to be themselves.

### **Feedback on Question 15**

The correct answer is 2. Feelings of group safety is relevant within the context of group discussions and debates (option 1 incorrect). To build on success of learners is a distinct method of teaching/learning (option 3 incorrect). Participants should be encouraged to participate but never forced (option 4 incorrect). Read “Role play and simulation” (p. 218 / p.158) for more information.

**The End**